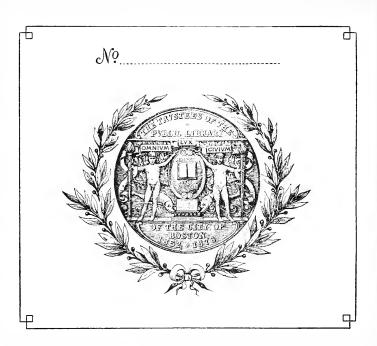
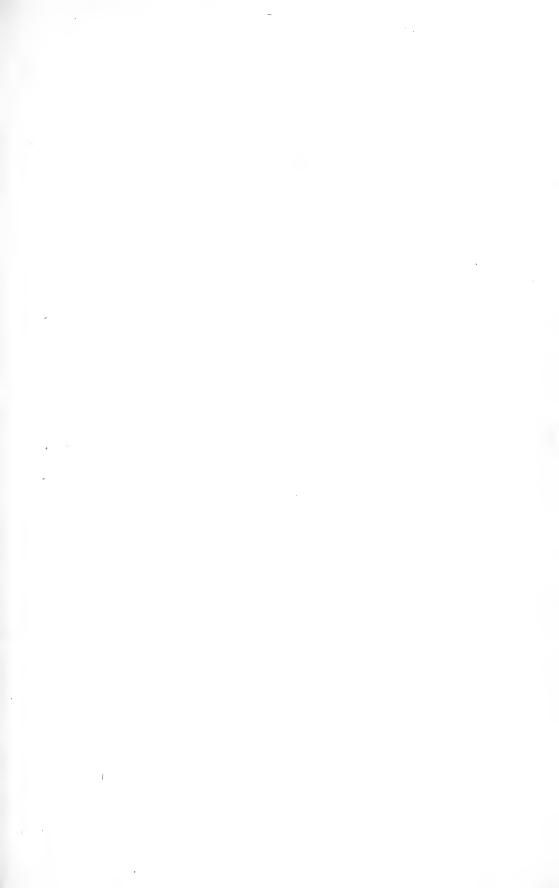


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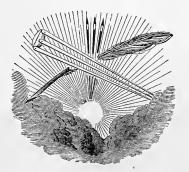
AN ILLUSTRATED MONTHLY JOURNAL,

DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

January, 1874.



PHILADELPHIA:
BENERMAN & WILSON,
PUBLISHERS.

Subscriptions received by all News and Stockdealers.

FIVE DOLLARS PER ANNUM, IN ADVANCE.

Sherman & Co., Printers, Philadelphia.

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126 N. Seventh St., Philadelphia.

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ARE THE MOST POPULAR.

GUN COTTONS, COLLODIONS, VARNISHES.

(See previous and following pages.)

ASK FOR ANDERSON'S COLLODION.

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TEST THE WHOLE LIST.

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Are now for sale by nearly every dealer in the United States, and they are popular wherever used. Photographers who do not have a dealer enterprising enough to keep them, would do well to send their orders direct to the manufacturer. No goods in the market are put up with so much cleanliness and care, or in such full measure. A full list of Hance's Specialties will be found on the second page following this.

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YOU ARE SAFE IN TRYING THEM.

THE COLLODIONS ARE MADE OF THE PUREST CHEMICALS.

And are warranted for the special work for which they are advertised.

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Is not generally appreciated yet. If photographers knew its real value they would employ it more largely. It is a great helper in giving proper printing qualities to a negative, and far easier to use than patching up, doctoring, dodges in printing, &c. Try it carefully. There has been a perfect rush for GROUND GLASS SUBSTITUTE during the last month. Ask your dealer for them.

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The SUBSTITUTE is in the form of a varnish; is flowed and dried the same as varnish, but dries with a granulated or ground-glass surface.

WHEREVER GROUND GLASS IS REQUIRED,

HANCE'S SUBSTITUTE ANSWERS EVERY PURPOSE.

FOR GROUND GLASSES FOR CAMERAS, FOR GLAZING SKY AND SIDE-LIGHTS, FOR OBSCURING STUDIO AND OFFICE DOORS, FOR PRINTING WEAK NEGATIVES, FOR VIGNETTE GLASSES. FOR A RETOUCHING VARNISH, FOR SOFTENING STRONG NEGATIVES,

FOR THE CELEBRATED BERLIN PROCESS.

Use the "Substitute." Use the "Substitute."

PRICE, FIFTY CENTS PER BOTTLE.

LARGE QUANTITIES FOR STUDIO LIGHTS, &c., SUPPLIED LOW.

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The hottle of Hance's Ground Glass Substitute came safely to hand. I selected a good piece of glass, coated it with the Substitute, and in a few moments I had one of the finest ground glasses I ever saw. Thave been using it four or five days, and the more I use it the more I am pleased with it. The "surface" is fine and delicate, and a great relief to the eyes. I would not be without a bottle for ten dollars.

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R. Newell & Son's Galler, 626 Arch St., Philadelphia, Feb. 17th, 1873.

I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "promise very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past ix months in my gallery, I can conscientiously pronounce them first-class in every respect. Your Ground Glass Substitute I consider one of the most practical and assful articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

R. Newell 1 111-1

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Per pound, \$1.50Half-pound, 80 Cts.
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Hance's Silver Spray Gun Cotton, Per Ounce, 50 Cts.
Per Ounce, 50 Cts.
Hance's Delicate Cream Gun Cotton, Per Ounce, 80 Cts.
Per Ounce, 80 Cts.
Gill's Concentrated Chromo Intensifier,
Per Bottle,50 Cts.
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1874.

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BY FRITZ LUCKHARDT, VIENNA, AUSTRIA.

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"These pictures were examined and much admired by all present."—Indiana Photo. Ass'n.

"The pictures elicited general praise; the draperies especially were very favorably commented upon."—German Photographers' Society, New York.

"The prints were thought to be worth more than the price which was charged for the journal, i.e., \$5; and the President, Mr. Black, stated that every operator should have a set, for he considered them to be most admirable studies, and superior to anything which he had seen heretofore."—Boston Photographic Society.

"They were accepted as being of a very high standard."—Brooklyn Photo. Art Association.

"The high artistic merits of the pictures, and their great value as studies for the progressive photographer, were conceded by all. The general harmony in the details of each print, the management of light, and beautiful rendering of texture were greatly admired."—Photographic Section of the American Institute, N. Y.

Special votes of thanks were given for them by the Photographic Society of Philadelphia; Photographic Association of West. Illinois; Chicago Photographic Association; Indiana, District of Columbia, and Maryland Photographic Associations; Photographic Section of the American Institute; German Photographers' Society, New York; Boston and Brooklyn Photographic Art Associations, whereat they attracted great attention and admiration.

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"I think when we say they are splendid it is only a mild expression of what they will bear."

—E. F. EVERETT.

"They are well worth striving for, and the photographers who allow this set to remain out-

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"They are by far the best specimens of photographs of white drapery that I ever saw, and the artistic part leaves nothing to wish for."—JAMES PARIS.

We make this offer as a matter of business, and not as favor to any one on either side. It will pay you to give a year's subscription to your operator or to your friend or customer, in order to secure these pictures.

BENERMAN & WILSON, Photo. Publishers, Philada.

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When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

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THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE, AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

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Asso	rted sizes and cold	rs,	by number	, per	package of fifteen	1	50
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"	8, 9, 10, 14, and 15,	"	"		Cabinets and Whole-size, " "		00
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When ordering, state the number and color you want. The Waymouth Vignette Papers are an English invention, and are becoming so universally used in Europe that we have pleasure in introducing them to our patrons. We own the copyright.

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FOR SALE BY ALL DEALERS.

THE ADMIRATION OF ALL AT THE BUFFALO EXHIBITION.





VIGNETTING PAPERS.

THREE NEW SIZES READY.

(See opposite page.)

TESTIMONIALS:

"Waymouth's Improved Vignette Papers I have tried, and they are just what I have been want-

ing for years."-WELL G. SINGHI.

"I enclose you an example of a new Vignetting Mask sent to me by Mr. Waymouth, one of my correspondents. Being composed of transparent paper there is no risk of breakage, and it readily admits of the gradation already very good, being modified easily to suit the negative. This, I take it, admits of the gradation already very good, being modified easily to suit the negative. This, I take it, is a point of great importance. The great defect of vignetting glasses is the regular, formal, uniform effect of vignetting produced by them, unless the printer take great pains to avoid it; and as no two oregatives, as a rule, require precisely the same form and gradation in vignetting anything tending to produce one uniform style is bad. This lithographed mask on transparent paper will. I think, be found a useful adjunct in vignetting."—G. Wharton Simpson, M.A., F.S.A. November World, 1872.

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"I can testify to the exquisite softness obtained from your Vignette Papers, which gradual and soft effect I have never seen equalled by any other method."—H. A. H. Daniel, Esq., Hon. Sec. of the

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"At a meeting of the Bristol and Clifton Amateur Photographic Association, held at the Bristol Museum, on the 16th of October, Mr. Daniel read some notes on Vignette Printing, &c., and laid the new Vignette Papers before the meeting, and highly recommended them, as being cheap, simple, and effective, giving beautifully soft vignettes."

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Oval, Round, Elliptic and Square, of all sizes; various shapes for Stereoscopic work, Drug Labels, &c., &c. Regular sizes always on hand. Special Sizes made to order. Price for regular photo-sizes, 10 cents per inch the longest way of the aperture. Special sizes, 15 cents per inch. FOR SALE BY ALL DEALERS.

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IS A NECESSITY AND CONSIDERED INVALUABLE.

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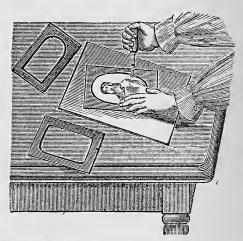
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The difficulty of procuring exactly true guides for cutting out prints has induced the inventor to put up machinery for the production of all styles of them, guaranteed mathematically true, and to be known as

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See advertisement on opposite page.

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TESTIMONIALS.

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"I would rather give fifty dollars than be without one. By its use all annoyance from dull knives tearing the prints is avoided, and it is a pleasure to use it."—E. T. WHINNEY, Norwalk.

"Robinson's Photographic Trimmer is an excellent little instrument. It does the work intended magnificently. It is not only exquisite for trimming photographs, but also for making Cut-Outs and cutting the sensitized paper to any needed size, using for the latter purpose a guide of steel in form of a ruler, thus entirely dispensing with the knife."—BERN'D KIHLMOLZ, Chicago, IU.

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"It does its work magnificently. The only wonder is, that it was not invented years ago. It is indispensable."—Garrett Bros., Philadelphia.

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"The Trimmer comes up to all you claim for it. I would not be without it."—T. CUMMINGS, Lancaster. "Robinson's Photograph Trimmer is all that it is claimed to be. I have trimmed all my prints with it from the day I received it, in less than half the time taken by a knife. It does its work with mathematical correctness and uniformity. I would not be without it for ten times its cost. It cannot be recommended too highly."—W. H. Cranston, Corry, Pa.

"The Robinson Trimmer has proved to us one of the most usefully instruments that we have in our gallery. In the few months that we have owned it we cut some 10,000 photographs with it, which were cut in one-fourth the time, and cut better than any other instrument could do it."—Schreiber & Sons, Phila.

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without it, but when I do I shall not sew any more? That is me, I can get along without the Trimmer but when I do I shall not trim photographs."—Well G. Singhi, Binghanton, N. Y.

"It gives perfect satisfaction, being the best thing of the kind I have ever used. There is nothing amongst my photographic stock more useful."—M. P. Rice, Washington, D. C.

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Acetic Acid,
Chemically Pure Acids,
Iron and Ammonia Proto-Sulphate,

Chloride of Gold,
Iodide of Ammonium,
Sulphate of Iron,
Cyanide of Potassium,
Chloroform,
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Sulphuret of Potassium.

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159 Washington St., Boston,

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For Portraits, Views, and Stereoscopic Work of all sizes. Send for Price List.

TRY OUR NEW STEREOSCOPIC LENSES

IF YOU WANT THE BEST. PRICE, \$22 PER PAIR.

None genuine unless our names are engraved on them.

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Sherman Card Frames. We have of these three different sizes and styles for the Card, Victoria, and Cabinet Photographs.

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And every description of goods used in the business, at wholesale and retail, at the lowest cash prices

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We have now successfully introduced to the American Photographers the Ross Lens, and by our increased sales we know they are appreciated. At the convention held at Buffalo, July 15, many fine photographs were exhibited by photographers, and ourselves, made with the Ross Lens, which attracted great attention.

While Ross & Co. are the oldest manufacturers of Photographic Lenses in existence, they also keep up with the requirements of the fraternity, by constantly manufacturing new combinations and improving on those already in existence. They have lately perfected, and will soon furnish us stock of, a new series of Card Lenses, extra rapid, peculiary adapted for bahies, and people who will not be quiet. We will give notice of their arrival.

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SOLE AGENTS FOR THE UNITED STATES,

822 Arch Street, Philadelphia, Pa.





PHILADELPHIA

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PHOTOGRAPHER.

EDITED BY EDWARD L. WILSON.

VOLUME XI.

PHILADELPHIA:
BENERMAN & WILSON, PUBLISHERS,
s. w. cor. seventh & cherry streets.

1874.

PHOTOGRAPHIC EMBELLISHMENTS.

- January. Portrait of a Lady. By F. Luck-HARDT, Vienna, Austria.
- February. Portrait of a Lady. By A. Marshall, Boston, Mass.
- March. Preparing Spring Flowers for Market.

 By Robinson & Cherrill, Tunbridge
 Wells, England.
- April. Portrait of a Lady. By W. C. North, Utica, N. Y.
- May. Portrait of a Lady. By WEGNER & MOTTU, Amsterdam, Holland.
- June. Dressing for the Masquerade, Cabinet Group. By L G. BIGELOW.

- July. Portrait of a Lady—Gold Medal Prize
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- August. Portrait of a Lady—the Second of the Prize Series. By J. BARHYDT, Rochester, N. Y.
- September. View of Naples and Vesuvius. By G. Sommer, Naples, Italy.
- October. Portrait of a Lady—Rembrandt Effect. By J. H. Kent, Rochester, N. Y.
- November. Portrait of a Missie—One of the Prize Pictures. By G. M. Elton, Palmyra, N. Y.
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MOSAICS 1874.

Our fears that the memory of the "financial crash" would hinder our readers from sending for Mosaics as usual were groundless, and we misjudged the photographic fraternity when we thought that one of the first things they would deny themselves would be books. No sooner did Mosaics reach us from the bindery, than the waiting orders for it caused it to be scattered on its mission of usefulness in all directions, and to all countries almost. It is a most useful book, with more pages than ever, and every photographer should have it. We have "a few more left." 50 cents.

OUR NEW PRIZE OFFER.

In order to awaken an interest in the production of good portrait work, we invite all of our readers to compete for a gold medal which we offer for the best three cabinet size portrait negatives of one subject which are sent us by April 15th, 1874, the successful competitor to be announced in this magazine, and the successful negatives to be printed for the *Philadelphia Photographer*. Three practical photographers of known ability, not competitors, will be chosen as the judges to make the award. The negatives are to be sent to Edward L. Wilson, Seventh and Cherry Streets, and will be submitted to the judges, numbered.

The names of the makers are not to be revealed to the jury until the award is made. We look for generous, spirited competition in this matter, and hope we shall be gratified.

THE SHAW & WILCOX PATENT.

WE must allude to this grievous topic once more. Our readers are covering us with communications for publication on the subject and overwhelming us with correspondence. We beg you in merey to refer to what has already been written and published over and over again. We cannot give you anything fresh upon it; we can do no good for you by publishing your communications. It wont decide anything. Mr. Shaw has obtained from the Patent Office a fifth reissue of his patent. With this in his hands he has the power to go into court and make oath that any photographer in the land (or all of them) use his patent. Knowledge as to the fact is not required of him. This throws upon you the burden of proving that you do not (if you do not) infringe his patent. And this you must do, if he complains against you, and thus have a lawsuit with him; or else you must make terms with him. Many have written us to "know what to do?" cannot advise you. The above are the only two things left to you to choose from; you must decide which is best.

What the result of a contest with Mr.

Shaw would be we cannot say. At Buffalo the disposition seemed to be to settle rather than to fight—a great many photographers, we learn, have done the former. After so many years of hard, successful warfare against it, this conclusion mortified us exceedingly, but if photographers prefer it, we have nothing more to say.

We are just as heartily with you as ever, and ready to help you rightly. We also wish our income would allow us to be so financially. Many of you have made agreements years back with Mr. Shaw. There are only two things that can be done in such cases, namely, to keep your agreement or to suffer the penalty of an action against you. The whole state of affairs is unfortunate, but there seems to be no resource but a long lawsuit for years to come. This reissue of the patent must be good or it must be bad. A case in court only can decide.

OUR PICTURE.

As promised some months ago, when we had the pleasure of presenting a picture from negatives by Herr Fritz Luckhardt, of Vienna, we now give our readers another example of the work of this famed artist We are enabled to do this by the generosity of the gentleman we have named, which, be assured, is unusual. We are ashamed to say it, but we have to confess, that we have extreme difficulty in inducing American photographers to take enough interest in the growth of their art in their own country to make negatives for our embellishments. There ought to be enough interest taken in supporting a plan which we were the first in the world to carry out, namely, that of issuing a monthly photographic study for the benefit of the craft, to not only give us plenty of negatives, but such an overwhelming quantity of them that we should have hard work to choose from them, and such as would enable us to show to our readers the very best work that is made by any one in the country. May we not hope that this will be better in the future, and that our new prize plan will bring us something really superb.

In our "Views Abroad and Across," we shall presently describe Herr Luckhardt's

studio with drawings, and tell our readers how he works, but at present will only give a part of a conversation we had together.

We mentioned the fact that he had been very liberal in sending us negatives for two pictures in our magazine, and stated what we have said above respecting the trouble we had to get such illustrations. His answer was: "When I see a man with the right sort of feeling trying to aid others to improve, I will do all I can for him I saw plainly the work the Philadelphia Photographer had undertaken, and understanding its editor and his method of teaching, I at once made up my mind that he should have the best negatives I could make, and as many of them as he wished, and that is why I sent you as many as I did. When you want more you are very welcome to them." We wish that many of our friends at home, whose names we could mention, would have this same spirit. May we hope that a better state of affairs will soon exist.

It will be remembered that our former pictures by Herr Luckhardt were studies in dark drapery, while here we have the reverse,—light drapery. Yet we have the same careful compositions, the same delicate lighting, and the same judicious retouching. There is a something about them which is characteristic of the man, and we shall explain what it is and why it is at another time, when we will also refer back to these beautiful pictures.

The prints were made by Mr. William H. Rhoads of this city. Their unusual beauty and brilliancy are due to the fact that they are printed on a new doubly brilliant albumen paper, recently introduced into this country by the Albion Albumenizing Company of London, and which is for sale by Wilson, Hood & Co. and Scovill Manufacturing Company.

The gilt and black mounts are of a new style, recently introduced by Messrs. A. M. Collins, Son & Co., Philadelphia. Usually these mounts are made black on both sides, and doubtless your stockdealer is prepared to show you many beautiful styles of them.

The prints were trimmed round cornered by the Robinson Photograph Trimmer, without which we could not undertake to do them.

THINGS NEW AND OLD.

BY R. J. CHUTE.

THE NEGATIVE BATH.

Water, 15 ounces.

Nitrate of Silver, . . 1 ounce.

Iodide of Potassium, . 2 grains.

This or a similar formula may be found in every work on photography, and is often reiterated in the journals; but as the nitrate bath is unlike most other chemical preparations we use, in that it is used indefinitely, it is a matter of the first importance that it should be kept in working condition after it is made. In order to do this it is necessary to know when it is in good order and when it is not; if it does not work well, to know what the difficulty is and how to apply the remedy.

If a bath fails to produce good work after it has been doing well, there is, of course, a cause for it. There may be said to be regular and irregular causes. The regular causes are those that come from the usual routine of work, and are exhaustion, becoming charged with ether and alcohol, dust and collodion films from the plates, and organic matter that dissolves and becomes a part of the solution. The first of theseexhaustion - produces pinholes, by the strength becoming reduced, leaving iodide of silver in excess, which is deposited in fine crystals on the surface of the plate. The remedy for this is to filter and strengthen. The second, ether and alcohol in the bath, causes lines and markings in the direction that the plate stands in the camera, from the drying of the plate by the evaporation of the alcohol held in the solution. The remedy for this is to boil the bath partly away till the ether and alcohol are expelled. The third, dust and collodion films, may be avoided in a great measure by being careful to keep the plates well protected after being cleaned, dusted before coating, and then wipe carefully from the edges of the plate the heavy ridges of collodion that collect as it drains, and which, if left, often become loosened and break off in the bath. These may be avoided by a pin in the dipper, so that the plate shall not go to the bottom; or it may be kept well in motion during the coating. The sure remedy, however, is to filter.

The fourth cause, organic matter in solution, comes mostly from the plates, though any particles of soluble matter that fall into the bath are taken up. A fruitful cause, probably, is albumen from the glass. To avoid this, care should be taken in albumenizing to prevent the albumen getting on the back of the plate, and also in coating to cover the surface as completely as possible so that no albumen is exposed. The result of this condition of the bath is fog, streaks, and opaque spots. These may be removed by adding nitric acid, but the remedy is not very permanent, and it may be necessary to repeat the dose in a day or two; besides the deposit in the negative, when developed, seems to be made up so largely of soluble matter, that after fixing, the shadows and dark drapery will be almost destitute of detail or relief. The most effectual remedy for this trouble is to neutralize the bath and boil it. It may be neutralized with ammonia, bicarbonate of soda, cyanide of potassium, or permanganate of potash. The first two of these are preferable, if the bath is any way decidedly acid. The two last have rather a cleansing influence, and may often be used with success. The bath should not only be made neutral, but slightly alkaline. In this condition, when heat is applied, the foul matter is liberated and falls to the bottom in a black mass. In renovating a bath in this way it should be filtered after boiling while it is yet warm. If allowed to cool, much of the matter thrown down may be redissolved and the benefit of the operation in a measure lost. After filtering, it may be diluted with pure water to the proper strength, and pure nitric acid added till it shows a rather decided reaction on blue litmus-paper. The effect of the acid, or the working condition of the bath, cannot be definitely ascertained until two or three hours after the addition of the acid.

With care to exclude as far as possible all extraneous matters, and avoid unnecessary doctoring, the treatment I have described will keep a bath in good condition indefinitely.

The practice of precipitating the iodide from a bath whenever it shows any signs of failure, no matter what the cause, is one that cannot be too strongly condemned. The only iodide I ever disturb is what little is precipitated, by adding to it a few ounces of pure water that has rinsed the bath-dish after drawing off the bath. This I do not filter out, but let it remain and be taken up again, if it will, when the bath is strengthened by boiling. In making up a bath, after boiling, it should be given its full bulk, filtered, and sufficient silver added to bring it to its proper strength.

The irregular causes of failure are those that do not arise as the result of ordinary work, or that come from applying the wrong remedy in case of some trivial derangement. A common remedy with inexperienced operators for all sorts of difficulties is acid. Now acid is only beneficial in cases of an alkaline reaction, or such as I have already mentioned. Another irregular cause is getting the bath too strong; it will produce spots, streaks, and hard, coarse negatives. Dilute and filter, and the trouble will disappear. Another cause is quite sure to make its appearance on the approach of cold weather, unless great care is taken to keep up the temperature. negative bath is the most easily disturbed by cold of all the chemicals used, or the effect of cold upon it produces the most annoying difficulties. And lastly, the bath should not be treated when the collodion, developer, or dirty plate-holders are at fault. Be sure of the seat of difficulty, if possible, before applying a remedy.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

Ι.

In asking me to send you for the readers of the *Philadelphia Photographer*, a series of articles, to make them acquainted with the establishments of the principal photographers of Paris, you allowed me full liberty to choose those that appeared to me the most interesting to describe, and at the same time you left to my discretion the order to be observed in this undertaking. I believe that I will meet with your approval, by commencing with the studio of Mr. Reutlinger. This skilful artist has every right to occupy the foremost rank; he is one of our oldest portrait photographers, and is one of those

with whose name and works your readers are well acquainted. Finally, his establishment has remained, in all respects, the type of those galleries, in which the first disciples of Niepce and Daguerre inaugurated their art, and made their reputations and their fortunes. Since 1852, Reutlinger has been obliged to enlarge his establishment in order to accommodate the great increase of his custom and his work. Experience has forced him to make numerous changes in his apparatus and his processes, but the appearance of the operating-room in which he works, and of the reception-rooms to which the public are admitted, have suffered but very slight changes.

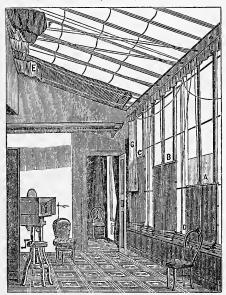
When I enter his place it seems to me that all at once I become twenty years younger; it would be very desirable that all his sitters should experience physically the same effect.

Before introducing the readers of the *Philadelphia Photographer* to the artist's studio, I think it would be well to make them acquainted with the master of the house. You, who now have a personal acquaintance with him, can judge if the sketch is a correct one.

Reutlinger, who is of German origin, has preserved the Teutonic type and accent. He is of medium height, inclining to corpulency, with a round face. His hair, which falls rather low on the forehead, is brown, short. and slightly wavy. His mustache and goatee are both thin, delicate and grizzly. His eyes, slightly sunken, have a piercing look under the spectacles which he always wears. He is about fifty years of age, but does not appear so old. He has no special dress for his work, and nothing eccentric in his garments. There is an air of simplicity and good nature about him which is not belied by his words. So much for the man, now let us speak of his studio.

Reutlinger's establishment is in the fifth and sixth stories of a fine house situate on the Boulevard Montmartre, between Vivienne and Richelieu Streets. Two frames hung at the door which opens on the Boulevard are filled with attractive portraits, (card and imperial size) of our female theatrical celebrities. It is about as much of an exhibition as is usually made by Parisian photographers. A handsome and wide stair-

way leads to the studio. The first things that strike you on entering the antechamber, which is transformed into an office, is the lowness of the ceiling and the want of light. On the right is a room, larger and better lighted, for the sale of those pictures to which I shall later refer. On the left are the exhibition and waiting-rooms. They consist of three rooms of medium size, slightly mansarded, and whose principal ornaments are the frames which cover the walls and which contain prints of all kinds. Here we find specimens that have obtained awards in all the exhibitions that have succeeded each other, during the last twenty years, in France and other countries. young lady, Reutlinger's beautiful daughter, who speaks several languages, receives the customers and does the honors of these salons. A small door leads to the skylight, of which I send you here inclosed the photograph. The view is taken from the door at which you enter. This gallery, formed of two mansards, which have been united by removing the partition that separated them, is 12 metres (39 feet) in length by only



4 metres (13 feet) in breath. Its height to the top of the upper sash is hardly 5 metres (16 feet 3 inches). The light comes from the north, but in sunny days it is far from being good, on account of the yellow reflec-

tions from the houses situate on the other side of the Boulevard, the fronts of which have a southern exposure. It is by means of an ingenious combination of white and blue shades, that the artist succeeds in correcting this defective light, so as to obtain the charming effects so much admired in his productions.

As may be seen in the accompanying drawing, these curtain screens, A, B, C, can be used separately simply by means of cords and pulleys. They move from the bottom to the top on the side sashes, and slide on the contrary from the top to the bottom on the upper sashes. When they are not in use they are gathered together as represented at D, E, F; besides these, other white curtains, G, can be moved in the ordinary manner from side to side.

This, I repeat, is the only secret by which the eminent photographer can execute, in a gallery so unfavorable in many particulars, works which with justice are classed among the finest productions of photographic art. It may be said that he handles light as a painter does color.

At the end of the gallery is a small room for ladies. The door which is seen on the left of our drawing, leads to the laboratory, which is divided into three small apartments. The first is used for cleaning the plates, the second for their preparation, the third for developing the negatives.

From the laboratory we pass into the rooms in which are found the artists who retouch the negatives and the positive prints. They consist of a large apartment, followed by a smaller one, in which seven persons are continually working. In an adjoining room are made the enlargements by the negative process. Further on is a kind of storeroom, containing the stock of plates of all sizes required for the daily work.

Before leaving this portion of the establishment, which is used in the various operations necessary for the production of the negative, I must add, there is not in any of the different rooms of which I have spoken, a nook or corner that is not filled with boxes containing negatives. These negatives, which are thus carefully preserved, exceed one hundred thousand in number. It is the wealth of the house; a

gold-mine continually worked, which instead of becoming exhausted, grows richer every day.

Continuing our investigation, we find on the same story the room in which the papers are prepared, and in which is performed the toning of the positives. Three persons are specially occupied at this portion of the work. The printing is done in the upper story, that is to say, on the roof, which forms a terrace. There we find five hundred printing-frames, which are constantly in use. Seven persons divide among them the careful work required in the operation of printing. The customers of Reutlinger are not composed of the ordinary public only, who have their portraits taken, but it includes also the dealers in specialties, and commission merchants, to whom he makes daily deliveries of the portraits of the celebrities of every description, -actors and actresses, statesmen, artists, authors, queens of the demi-monde, &c., of which he is the publisher, and of which the trade requires a large number. This is what constitutes the daily sale which I have already alluded to. All these portraits, catalogued and numbered with care, are arranged in cases and drawers around the table used for this purpose, and when the buyer presents himself, instead of asking for so many prints of Mr. X. or Miss Z., he simply asks for so many dozens of such a number, just as if he were buying any ordinary article from its manufacturer.

Reutlinger employs twenty-eight persons, without counting the colorists and retouchers, who work in their rooms at home. These twenty-eight persons are thus divided: two at the desk, one for the salesroom, two in the waiting-room, three in the gallery, three in the laboratory, seven at retouching, three in the preparation of the paper, seven in the printing and mounting of the the prints.

When one has visited, as I have just done, the establishment in all its details, it is easy to understand how much work, perseverance, and talent, were required from its creator (with the simple means which he employs), to produce the charming works of art to which he owes his fortune and universal reputation.

PHOTOGRAPHIC MINCEMEAT.

BY I. B. WEBSTER.

SIXTEENTHLY, about a Siphon.—While reading over one of the papers that were read before the Buffalo meeting of the N. P. A., I came across a long description of a siphon for draining the water from the tub or tank in which the toned prints were being washed, to insure a complete change of water at certain intervals during the washing, and the thought came to me that perhaps I could describe a simpler method, that does the work equally well, while the cost and trouble of it are comparatively nothing. I will tell you the simple story of my discovery of it, which will explain to you its workings.

When the city first brought the Ohio River water into our streets, I was among the first to introduce it into the photograph business. Several years previous to this I had made three large, shallow tubs, 25 x 30 in size, 6 or 8 inches deep, with handles at each end to carry them by. They were water-tight. When the water-pipes were put in I had one of these boxes lined with sheet-lead, and a waste hole made in the bottom of it. Into this I had a ferrule inserted and soldered tight. I then fitted to that ferrule a piece of pipe open at both ends, about four or five inches long, which would allow no water to run out of the sink until it reached the top of this pipe, when it would run out as fast as it came in. Thus, you see, I always have water in the sink with no danger of an overflow, as long as the top of the pipe was open. One day, while listlessly sitting by this sink, I chanced to pick up a round, smooth drinking tumbler, and set it down, bottom up, over this pipe. Its bottom was at least an inch higher than the top of the pipe. I turned on the water, and as it filled the sink and came to the top of the pipe, I watched the effect very closely, and presently it began torun down the pipe; and as the sink filled it ran down the faster, and presently the pipe was carrying off its full capacity, and I saw the quantity in the sink begin to get lower and lower, while the vacuum between the top of the pipe and the bottom of the glass began to get less and less, until finally all the air was gone, and its place filled with water in

rapid motion. Thus it kept on until the sink was entirely empty, notwithstanding the supply-pipe had been doing its best to keep up to the point where it started. I tried the experiment again, and it worked the same as before, I not stopping the supply once. I have done the same thing with a 16 ounce wide-mouthed bottle. Tin cans answer just as well. I afterwards introduced this siphon into the sink where I washed my prints. My prints I put into a wooden box with a canvas bottom, which fits into the sink, giving plenty of space around it, and the water is let on to the prints through perforated lead pipe. This may be very old to some of your readers, but I am free to say that "no one ever told it to me."

AN ERROR AND ITS REMEDY.

BY O. G. MASON.

A FEW months since I received a note, requesting me to call at the office of a prominent railroad company "upon professional business." On answering the request, I was ushered into a long hall, upon one side of which hung a map forty feet long, and nine feet wide, highly finished in water color, such as was deemed best for representing the conformation, variety, and general geographical features of the vast tract of our territorylying between Lake Superior and Puget Sound, on the Pacific Ocean. The timber land was represented by seemingly numberless miniature trees in deep green; the mountains in blue, white, and brown; rivers, lakes, and ocean, in brilliant blue, &c. This map I was asked to photograph to 1/4 scale, which would make my copy about ten feet by twenty-five inches, exclusive of margin. With due degree of hesitation, I undertook the work before learning, as I afterwards did, that it had been pronounced impossible by others who had examined it. Of course it would not be feasible to use a plate ten feet long, and the width of the hall would not admit of working a proper lens for producing an image in sections, twentyfive inches high. I was therefore obliged to remove the map to other quarters, and as my own place was fully occupied by special work which I could not well defer, I made arrangements for the use of the operating-

room of a skilful friend, whose reputation led me to engage his assistance on the work. The map was carefully rolled, and with the aid of four men removed to the place selected. I concluded to make the copy in six sections, upon 30 x 26 inch plates. A plank frame as high as the map was wide, and one-fourth its length, was erected upon a movable platform, and securely fastened in a true perpendicular; about ten feet of the map was then unrolled and held to the frame by tacks driven through the heavy silk binding which covered the outer edge of the margin. The camera was placed in position, focus arranged, and a trial plate made; everything appeared satisfactory.

This preparatory work had consumed most of the first day, and in order to insure our labor for readiness to begin early the next morning, we nailed both the camera stand and the platform on which the map was mounted, to the floor. The great value of the map was such, that for safety against accident, by storm or otherwise, it was taken down, re-rolled, and placed in its metallic case. When I reached the operating-room on the next morning, I found my friend and his assistants busily making a negative of the first section of the map, which they had again placed in position. Upon inquiry I was told, that careful measurements of the image on the focussing-screen had been made, and everything found satisfactory as on the day previous. The work was proceeded with, the whole day being required for its completion, although we had no failures from error in timing a single exposure or in manipulation. But the heft of the map, and the great care required in handling it, made the work necessarily slow.

On the next morning the negatives were varnished, and the printing began. Some idea may be formed of my surprise, when on the fourth morning from the beginning of the work, I attempted to mount an entire copy of the great map, and found that the sheets would not join, or rather that the border and all geographical lines failed to meet. Upon measuring the negatives I found that the left-hand end of each image was one-fourth of an inch larger than the right-hand ends on the same plate. Owing to some error in measurement, or change of

position after exposure of the trial plate, the whole series had been made without the original having been at a true right angle with the axis of the lens, hence the distortion. What could be done to remedy the defect? Making a new set of negatives was out of the question, as the original was then far on its way across the Atlantic Ocean. The order was an important one, large sums of money were expected by the company, and some by myself, if the work could be successfully completed. After some days experimenting, I constructed a mountingtable, large enough for the whole copy when mounted, around which was fitted a stretcher frame, which could be easily removed at will; upon this frame I tightly stretched thin muslin, known in the trade as "strainer muslin." The narrow side of each sheet was spread with thin starch paste, the proper consistency having been determined by experiment, gradually working it over the entire sheet, which was then quickly laid on the stretched muslin, and the narrow end expanded by a gentle pulling pressure of the hands, until certain lines on the print should coincide with others previously drawn parallel by the use of a long straight edge, the entire length of ten feet. The stretcher was then removed from the table and allowed to hang by one edge, sustained along the central portions by slats or braces to prevent the sides from springing inward, by contraction of the drying prints. When thoroughly dry, the entire map was stripped from the thin muslin, a process rendered easy by the porous nature of the material, and the thin starch used in mounting.

The prints were then remounted with strong "bookbinder's" paste on firm heavy muslin, upon which parallel lines had been ruled as in the former case, to serve as a guide for any further expansion, which was usually found necessary in places, in order that all the lines might meet properly.

In this way the error in making the negatives was by a large amount of work corrected, and the photographic copies of the great map delivered with satisfaction to all except the maker, whose profit on the estimated price had, by the extra work required, been reduced until it had changed to the wrong side of the balance sheet—a common occurrence with a photographer!

Means of Excluding Chemical Rays.

BY JOHN M. BLAKE.

I HAVE once before called attention to the value of bichromate of potash solution for this purpose. By its use we can obtain an excellent illumination, and at the same time it is very effective in stopping out chemical rays. Four years' experience in its use has confirmed my first impression as to its utility; but I can now give some further hints that may be useful.

My attention was first drawn to the properties of this solution by mention made of it by Mr. B. Ford (see *Photographic News*, 1869, p. 451). He employed the solution inclosed between two plates of glass, and was thus enabled to watch development through it when out of doors.

Soon after I had given the results of some experiments, made to determine the comparative value of this means of illumination, the matter was reduced to practice, and very little modification has since been found necessary in the original arrangement. In the first place, it is well, as involving less trouble and expense, to depend upon yellow paper, as heretofore, for the general lighting of the room, that is when a window of sufficient size is available; but to have some means of darkening this readily, when danger of fogging is apprehended. Then immediately opposite, and as near as possible to the place it is most convenient to hold the plate while developing, have one or two common cylindrical quart bottles filled with half-saturated solution; each should stand upon a small circular shelf with raised edge, placed at the bottom of an opening in a thin board partition. White light should be completely excluded by tacking elastic woollen cloth, so as to press the edge on against each bottle, and also by blacking the bottoms if found necessary. The necks of the bottles should come just inside of the partition, the shelf being inclined for this purpose; thus arranged they can be taken out on cold nights, to avoid freezing. Glycerin or alcohol is not admissible as a preventive; it would reduce the chromic acid. Only solution made from clean crystals should be used. This apparatus will throw a bright light upon an object brought near

to it, and its chief value will be for the critical examination of negatives, during and after development. Few will undertake to light the whole room by this means, although it is easy to imagine what a nonactinic paradise is thus brought within the range of possibility.

In order to make the most of the small aperture that we do use, it is necessary that the light from the sky or snow-covered ground, &c., should not be obstructed from reaching the bottles. It will then pass through from all directions, as through a globe lens, though from an even larger field. The globular form of containing vessel will thus he found superior to the flat; but a cylindrical vessel is cheaper, and more easily replaced, while practice shows it to be little inferior to the globular form. Two one-quart bottles of bright glass were found equal to an eighty-ounce thin globular flask eight inches in diameter.

The bottles can be placed close to an argand lamp, when preparing plates in the evening, and thus a powerful light thrown to a long distance, making drying racks and bath visible with an entirely safe light, while by a near approach a splendid light can be got for development.

It is well, once in a month or two, to filter the solution, and wipe the inside of the bottles to remove any deposit that may obstruct the light.

Two four-ounce vials filled with nearly saturated solution gave a splendid illumination inside a tent of the Rouch form; one was placed in the top and received the skylight. When the sun was shining on one of the vials, but screened by tissue-paper, a light was obtained that a photographer from habit would instinctively shrink from, but plates were prepared, drained, and developed, quite free from fog. The advantages of having such a light to develop by will strike any one on trial. It often happens in many mechanical operations that a workman will accomplish much more work, and do it better, if pains be taken that he has a proper light by which to work. Employers often overlook their own interests, by not recognizing this simple fact. Why should this be any the less true in the case of development, an operation requiring great experience, care, and attentive watching? In a proper light, the point where the last portions of clear glass are leaving the shadows is where the first symptoms of fog can be readily detected. Who cannot recall experience in working in some black hole, where the operations have been pretty much reduced to the game of hit or miss; and you could only know what you had bagged, or what blunders you had failed to commit, on emerging into daylight. This is an extreme ease; good work can be done if care is taken to profit by ordinary means of illumination. The use of the light through bichromate of potash solution, it is claimed, will enable us to make still another step in advance.

And now in regard to the reason of the superiority of this solution; the spectroscope shows at once. If we start with a very dilute solution, we will see that the transmitted light shows the speetrum in the red and yellow with undiminished brilliancy; while the green and part way into the blue are visible to a certain extent. As we increase the strength of the solution, the blue is soon cut off entirely, and with a strong solution, the portion of the spectrum that contains the active chemical rays is suddenly cut off from the middle of the green, while the red and yellow rays are transmitted with little loss of brilliancy. portion of the green remaining adds to the illumination, while its chemical activity is almost nothing.

If we compare yellow pot-metal glass, just such as is commonly sold for this purpose, we find the light greatly diminished in the red and yellow, and while the transmitted light is thus robbed of its most valuable part for visual purposes, the spectrum can be traced far into the blue. A specimen of flashed yellow glass was found not to be superior to the other variety.

There is an orange chrome paper, such as used for envelopes, also coming to the notice of many in the wrappers for mailing the British Journal of Photography; it is perhaps less generally met with in the United States. It may be known by its tinder-like properties, the least spark spreading rapidly on its surface. When this is oiled it gives a splendid orange light, though the spec-

troscope reveals blue light, and shows the red and yellow with greatly diminished brilliancy. Then there is the common yellow envelope paper, which fades on the side exposed to light; this is inferior to the orange chrone paper described above. Asphalt varnish is utterly wretched, greatly diminishing the light, and transmitting much blue.

I have not had an opportunity of comparing the non-actinic muslin and silk, advertised in European journals; nor a veritable sample of silver-stained glass. Our stockdealers appear to have made no effort to introduce either. Certain varieties of flashed red glass make perhaps the most effective screen known; but there is the drawback, that little light is transmitted, it being only a part of the red. Full sunlight may be allowed to fall, through a suitably chosen sample, upon a sensitive plate for several seconds without producing fog. Yet by the aid of the spectroscope and direct sunlight, blue or violet transmitted light can be detected with little difficulty, provided we superpose a piece of green glass to cut off the glare of red light. A blue sun can be seen by simply looking through the red and green glass mentioned, with the addition of a piece of blue glass.

The utmost amount of light that can be transmitted by any possible medium can of course only approach the amount that falls upon it. If one medium transmits three times as much light as another, and has at the same time the advantage that a sensitive plate can be exposed to its full intensity thirty times as long without producing fog, it is reasonable to conclude that the former is ninety times more efficient. we reason in this way we may take the above figures as expressing the relation of bichromate solution to yellow glass. If we choose, we can continue to dilute the solution until the same number of seconds' exposure to its full intensity will fog a plate, as when it is closely approached to the yellow glass window. Now our solution will not admit very much more light than it did before, since when strong it transmitted the greater part; still there is a marked increase in the light, and it looks so white, that one at first can hardly credit that a plate will stand as good a chance of developing up clear, as before the comparatively dark yellow glass window. A landscape was taken in ten minutes through a yellow glass, by means of a portrait lens.

A word in regard to the poisonous properties of bichromate of potash. A case is reported (see *Taylor on Poisons*) of death in five hours from accidentally receiving a small quantity of solution into the mouth, when using a siphon.

BIBLIOGRAPHIC.

ELEMENTS OF PHYSICAL MANIPULATION. By Edward C. Pickering, Thayer Professor of Physics in the Massachusetts Institute of Technology. One vol., octavo. Illustrated. Price in cloth, \$3. New York: Hurd & Houghton, publishers.

This is a work which the thoughtful and intelligent portion of our readers (and we hope they are all either such, or becoming such) will find well worthy of their careful We have often suggested that study. better acquaintance with natural philosophy would make better photographers than we have now, but the difficulty in the way of acquiring that knowledge has been the want of proper books of instruction. The majority of the manuals on the subject have been prepared with the intention of being studied with a course of lectures. Professor Pickering with great good foresight has stepped aside from this rule, and supposing the reader to be provided with the instruments, lucidly explains their use, what precautions to take, and what errors to avoid. This he does with a care which evinces the practical, thoughtful man throughout. Those who have the leisure to devote to physical research will find this work a most useful companion. We wish that many of our readers would take it up and among the special topics treated here which would be useful to them, we might mention the Mechanics of Solids, the Mechanics of Liquids and Gases, and particularly Light. In this last class we have sections devoted to Photometry, Laws of Reflection and Refraction, Laws of Lenses, Foci and Aperture of Objectives, Interference of Light, Diffraction, and so on. Professor Pickering has not forgotten either to devote a portion of his

book to Photography, the instructions being essentially those given to the students of the Institute by Mr. Whipple. Throughout it is a most practical, sensible, desirable work. It is beautifully printed on excellent paper. We have the permission of author and publisher to make extracts from its pages, and they have kindly supplied us with electrotypes for the purpose. We shall avail ourselves of their kindness, beginning now with the chapter on the

DAYLIGHT PHOTOMETER.

"Apparatus. - A B is a box about six feet long, a foot wide, and a foot and a half high. It may be made of a light wooden frame covered with black paper or cloth. A circular hole about four inches in diameter is cut in the end B, and covered with blue glazed paper with the white side out, and made into a Bunsen disk by a drop of melted candle-wax in the centre. long wooden rod rests on the bottom of the box, and has a standard wax candle, A, in a spring candle-stick, attached to one end. The distance of the candle from the disk may thus be varied at will, and measured by a scale attached to the rod. The box should be ventilated by suitable holes cut in it, or the air will become so impure that the candle will not burn properly.



"Experiment -This instrument is intended to compare the amount of light in different portions of a room, or its brightness at different times. When the candle is placed at a distance from the photometer disk, the latter will appear dark in the centre, while by making A B very small, so that the strongest light shall be inside, the centre will be bright. The color of the candle flame being of a reddish tint compared with daylight, is first passed through the blue paper, which thus renders the colors more nearly alike. When the distance of the candle is such that the illumination is equal on both sides of the disk, the spot will nearly disappear, and unity divided by the square of this distance gives a measure of the comparative brightness under various circumstances.

"An excellent experiment with this instrument is to measure the fading of the light at twilight. Light the candle and place it at such a distance from the disk that the spot shall disappear, as in the last experiment. As the light diminishes, the distance A B must be increased. Take readings at intervals of one minute, and construct a curve with ordinates equal to one divided by the square of this distance, and abscissas equal to the time. The amount of light for different distances of the sun below the horizon may be obtained directly from this curve. In the same way the brightness of different parts of the laboratory may be measured, the effect of drawing the window curtains, and the comparative brightness of clear and cloudy days. This apparatus was used during the total eclipse of 1870, to measure the amount of light during totality, possessing the advantage that on returning, the precise degree of darkness could be reproduced artificially. Comparisons may also be made with moonlight, the light of the aurora or other similar sources of light."

A QUESTION ON INSURANCE.

I WISH to ask some of our good financiers to solve a question for my benefit, and the benefit also of our whole craft: How long are we (photographers) to be imposed upon by insurance companies? Why should I or any other photographer be rated by insurance companies the same as druggists? Why should every occupant of the same block in which my gallery is situated pay one-fourth per cent. more because there is a photograph gallery in the block? Where, when, and how did insurance companies get the idea that a photograph gallery was such a dangerous institution to insure? Has one fire in five thousand originated in a photograph gallery?

Now, I have asked the above questions that I may ascertain some facts as to how other photographers are situated, and how it is that they keep such a quantity of explosives and combustibles as to scare all the in-

surance companies out of their wits (if they ever had any)? I can answer some of the above questions, so far as my gallery is concerned, but my answers may not apply to others. The explosives and extraordinary combustibles in my gallery consist generally and ordinarily of from one to two gallons of alcohol, which I keep in a tin can; from one to three pounds of sulphate of ether, and perhaps two or three pounds of mixed collodion; and all this kept in my dark-room, where a lamp is seldom if ever introduced.

Now why should we pay the same rates of insurance that a druggist does, whose shelves and drawers are lined with every kind of explosives and extra hazardous combustibles known in the dispensatory, and his cellar is a magazine of explosives? Perhaps I am the only photographer thus imposed upon. I am quite anxious to find it out.

I was most effectually burned out last March, but the fire originated at least one hundred and twenty feet from my gallery, in a dry goods store. I saved as much from my gallery, in proportion to contents, as was saved from other portions of the block, which, however, was very little.

It is very true that we have some articles in our galleries that we expect to pay special rates on, if we get them insured. If I get my negatives insured, I expect to pay special rates, but I cannot see the fairness in charging extra rates on my room furniture, instruments, &c.

J. C. Potter.

We would add that we have a communication on this subject also from Mrs. E. N. Lockwood, Ripon, Wis, who has been one of the champions before the National Photographic Association in this direction. The Executive Committee are in correspondence with her, and will probably communicate with our readers concerning it presently.—Ed. P. P.

RETOUCHING AT NIGHT.

BY FR. WENDLING.

DOUBTLESS many photographers have tried to use artificial light for retouching the negative, but it seems without result. I never read or heard of success. I have made also different efforts in that way; but

in the last winter before Christmas-time my work pressed me to make another experiment. I tried a petroleum-lamp, with round burner, and fastened to it—in order to secure a stronger light and parallel beams—the parabolic mirror of my magnesium lamp. I gained an intense light, to be sure; but on retouching I felt my eyes very much affected.

Now, I remembered that once a watchmaker told me he was able to work easily in the evening, since he employed the lightblue glass (called optical glass), and I followed him in using that material. The effect was excellent, and since, I have retouched a great number of negatives at night.

As the parabolic (or spherical) mirror concentrates also the heat-beams, it would perhaps be an improvement to use instead of the blue glass a "curvette," containing a solution of sulphate of copper with ammonia or Prussian blue dissolved in oxalic acid.

This is a welcome requisite, although it may be considered both rough and very simple—a very egg of Columbus.

VIENNA, Nov. 1, 1873.

CONVENIENT COPYING TABLE.

BY B. F. HALL.

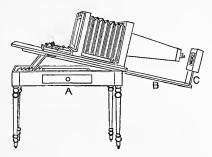
Fig. 1 is a photograph of my copying table as I use it for enlarging small pictures, and it is made as follows: A, an ordinary table, having legs three feet long, with a solid top hinged at one end. Underneath this top is a sliding-board B, full length of top, and six inches wide, held by dovetailed pieces screwed to the top.

Near each end of this sliding-board are two half-inch holes, into which fit corresponding pins attached to a shorter board C, which stands at right angles to B. Upon this shorter or upright piece is placed the small blackboard, on which are fastened the pictures desired to be copied. This is also made adjustable by dovetailing on C.

Now every photographer knows how desirable it is to get rid of the granulated appearance of copies from paper pictures, which is caused by lights and shadows on the uneven texture of the paper.

I effect this, to a considerable degree, by

tilting my camera as shown in Fig. 1, so that the light falls as near at right angles as possible.



This tilting is done by a device plainly shown in the illustration, viz., by a couple of pieces hinged to the underside of the table cover, and resting on notched pieces fastened to the inside of the rails of the table.

It will readily be seen that it matters not at what angle your camera may be, the picture to be copied will be parallel to it. As I frequently tilt my camera pretty well, I have a narrow cleat fastened to the end of the table to prevent it sliding off, and it also serves as a guide to keep it and the picture at right angles to each other laterally.



Fig. 2 represents the same table as I use it for making magic-lantern slides, porcelain pictures, and reproducing negatives.

The camera is of course reversed on the table this time, looking upward and toward the light. A is a box, which replaces the sliding blackboard used in copying, with its open side toward the lens. The negative is placed at B, and a vignetting diaphragm at C. The open side of the box being to-

ward the lens sufficiently, shades the near side of the negative, and necessitates all the light coming from that direction being transmitted.

I forgot to say that the upright piece upon which the box A slides has a large oval hole cut out of it for this purpose.

PRINTING AND TONING ALBUMEN PAPER.

BY R. M. CRESSEY.

ONE of the chief difficulties met with in photography, at the present day, is the want of less complicated formulæ and more care and skill. By adopting the following plan you will be enabled to produce as fine results as one could wish, with the least difficulty.

Procure any good sample of paper, and prepare a silver solution as follows: Dissolve in ice-water sixty grains of silver to each ounce of water used. To every thirtytwo ounces of solution add twenty drops of a saturated solution of alum in water, and add these to four drachms of a saturated solution of sal soda in water; shake well and filter, and float your paper from one minute to three (and if for immediate use dry by artificial heat, and fume over strong ammonia ten to thirty minutes). When surface-dry place it between blotting-paper previously prepared, by drawing through a twenty-five grain solution of sal soda in water. When dry make into book-form, and place the silvered paper between the leaves. Paper thus prepared will remain good for months, and when about to use fume ten to thirty minutes. Print but a very little darker than you wish the finished print. Trim, wash in three changes of soft water, and tone in the following: Soft water, thirty-two ounces; fine table salt, one tablespoonful. In a graduate put one to two drachms of acid gold solution and a small piece of blue litmus-paper. Now add saturated solution of sal soda in water, drop by drop, till the litmus-paper remains blue, and add to the above toning solution. Now place a few prints in, face down; at first they will turn a bright cherry color, and soon to a brown sepia or steel tint. Fix in hypo,

strength one to ten of water, with a little salt. Turn the prints continually till thoroughly fixed, with the face down. Take directly from the hypo and place in a strong solution of salt and water, ten or fifteen minutes, and add fresh water, and handle the prints in several changes of water one-half to three-quarters of an hour; then pile the prints one over the other on a piece of glass, and press out the excess of water, and immediately mount.

By following the above plan you will not be troubled with any blistered prints, and they will retain all their original lustre.

Acid Gold Solution.—Take four parts muriatic acid and two parts nitric acid, take gold coin and roll thin or cut in small pieces. Place in a small glass flask or an evaporating-dish over a sand-bath, and apply gentle heat. After adding a sufficient quantity of the prepared acid to cut the gold, then cool off, and add water (if you used a two and a half dollar piece) twenty ounces. Filter and bottle for use.

PHOTOGRAPHIC ADVERTISING.

WILL the craft in general favor an inquirer, by giving their experience, as to the best way of advertising? In cities, the daily papers and the usual mediums of irregular advertising, such as promiscuous distribution of cards and the time-honored circulation of posters on "rock and fence, on curb and post," like "S. T .- 1860-X," or a ten-cent monkey show. These and the huge bunch of cheap circulars, pendant by cotton cord and a fresh tack-nail every day, at the show-case at doors, are made to tell where is the "cheapest gallery in town," "\$2 per dozen," "one of the largest galleries in the State," &c., to the end of the chapter. I ran up two pairs of stairs, a few days since, purposely to see how large such a gallery was; and one man was there at work, It may be just barely possible, such thin advertising will keep things jogging along. But I know galleries that advertise thusly, and, as above, one man does all the work easily, and a gallery that could be mentioned, advertising only through the press and by its work, keeps eight employed, from early till late. Can we employ, next to carefully finished work, any better medium than the public press? and are we not as a class too fond of using the superlative in extolling the merits of our photographic productions?

Our well-known friend, P. T. Barnum, is more than lavish of that most excellent work known as "Webster's Unabridged," but a medium must exist between a "side-show" and an "art atelier." The public are quick to discern it, and every move an "artist man" makes is closely criticized, and his future in a measure rests on the verdict.

So, once more would I ask, those especially who are enrolled as our "veteran corps," "Which is the better way of photographic advertising?" by "public press," "circular," "fence, post, curb, and sidewalk poster," or "carefully finished work" and "discretionary conduct toward our patrons?"

J. PITCHER SPOONER.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

Modes of Enlargement—Prizes for Large Photographs.

Modes of Enlargement.—One of the most definite lessons which photographers have learned at the late exhibition of the Photographic Society relates to the subject of enlargements, and it leaves little doubt that the most perfect results are obtained by the plan of producing an enlarged negative, rather than by the modes of producing an enlarged print from a small negative by means of the solar camera or similar instrument. At the exhibition we have had examples of almost every method of enlargement. The Autotype Company who exhibited enlarged prints four or five feet long, both of portraits and landscapes, received the medal for the best enlargement. It is their plan to produce a transparency in carbon, by contact printing, from the original negative; and from this transparency an enlarged negative. The absolute sharpness and perfection of texture of the carbon transparency, which is of course free from the granulation which always

must in greater or less degree characterize an image developed by the deposition of nitrate of silver, are understood to contribute very materially to the excellence of these enlargements. Next in excellence to these, and probably in some points quite equal or superior, are those produced by Mr. B. J. Edwards, whose mode of enlarging consists, it is understood, in producing an albumen negative, and from that an enlarged negative. Next in delicacy, but far inferior in vigor, come enlargements on collodion transferred to paper. Far surpassing these in vigor, but lacking something in delicacy, were some very fine solar camera enlargements on albumenized paper, printed out in the solar camera, I presume, by Mr. Starke, of Zanesville (U.S.). These were very excellent of their kind; but less delicate, soft and pleasing than those from enlarged negatives. Finally there were some developed solarcamera prints good enough of their kind, but their coarseness served simply as an admirable foil to the finish and beauty of the fine prints from enlarged negatives hung near to them.

Successful enlargement is under any circumstances an operation demanding much skill, and the advantage of the enlarged negative method is, that it permits the fullest opportunity for the exercise of skill and judgment in various ways and at various stages, by which the original negative if good can be equalled, if imperfect, in some respects improved upon. Considerable modification of a photographic kind may be effected in the intermediate transparency, which may be made softer or more vigorous than the original negative, but it is in the facility for retouching the greatest power is gained. Retouching on the negative can only strengthen or put in lights; it cannot deepen the shadows. But judicious retouching having been effected on the lights of the negative, the transparency next presents facilities for a new essay in retouching, giving depth and force to shadows, adding masses of shadow to the background, &c. Then finally the enlarged negative affords a further opportunity of retouching. Very little, indeed, need be done at any stage, but the various stages being available, improvement in each becomes possible, and an effect of high finish is thus secured with comparatively little elaboration.

One series of very fine enlargements exhibited by Mr. Croughton, which were produced from enlarged negatives, were produced upon a slightly different plan. They appeared to be very highly finished pictures, and yet, in truth, there was scarcely any work upon them at any stage of the process by which they were produced. Mr. Croughton furnishes me with details of his operations as follows: "The transparent positive is enlarged from the card negative up to 10 x 8 in the usual way upon a wet plate, with the ordinary materials for the wet process. After it is dry it is coated with a matt varnish. I then place it in the retouching frame, and with a tuft of cotton-wool in the end of a crayon holder, I rub evenly all over the face a mixture of the finest black lead in powder, mixed with putty powder (oxide of tin). The matt varnish presenting a surface something like a finely grained lithographic stone, it will readily be seen that the black lead gives a stippled effect all over, but so fine that it looks somewhat like an even flat tint all over the face. This flat tint having been thus simply produced all over both lights and shades, I now go over the lights with a piece of bread moulded to a point by the fingers, and take off the powdered lead from the points of highest light, and softening and subduing them where necessary. Then with the point of a black lead pencil (H B) I deepen the pupils of the eyes, the line of the lashes, the nostrils, lips, hair, and any part of the drapery that may require it. The transparency is then placed in the enlarging camera, and a 20 x 16 negative taken from it, which yields a print having all the appearance of an elaborately stippled picture." Some examples which I have seen of this mode of working have been strikingly improved by the addition of light and shade in the background, put in with black lead upon the transparency, which gave relief to the figure and pictorial value to the enlarged photograph, which was altogether wanting in the small picture.

Prizesfor Large Photographs.-Mr. Crawshay has announced his intention to give next autumn a similar series of prizes for large photographs to that recently awarded. As before there will be £50 for the best, and £25 for the second best series of three heads, eight inches from forehead to chin, on plates 20 x 16; and £25 for the best, and £12 for the second best series of three heads four and a quarter inches from forehead to chin on plates 15 x 12 inches. Also £25 for the best enlargement on a plate 20 x 16, by any method. I will write you further details shortly, and I hope to see some American photographers enter the competition next time.

Preservation of Stereographs.

BY PROF. C. F. HIMES, PH.D.

Perhaps no one who has taken pleasure in the stereoscope, and has used it systematically as something more than a toy, has not at times been annoyed by defects that have put in an appearance on the best pictures, or who has not noticed the gradual deterioration by use, which is inevitable. They may be carefully arranged, according to the subjects they are intended to illustrate; if of travels, for example, they may be assorted and numbered, catalogued, and stowed away in separate boxes by nationalities, or subjects, or on any plan, that may reduce the number handled, to find any particular one, to a minimum, and yet they will be found much more liable to injury than the printed volumes of travel, or the well stored note-book they supplement so well. The latter may have worn bindings, stained, and partially effaced, and even dog-eared leaves, but although unsightly, and less attractive by reason of these, its real substantial value remains unimpaired. It will still tell its story as well; as truthfully and completely still call up and retouch gently fading recollections. But the reverse is true of the stereograph. Long before it begins to show defects, or to become unsightly to casual inspection, it may have experienced a decided change for the worse; may have lost in the power and fulness with which it renders its part of the story. This is not the case simply because it is a more tender article than a printed page, but because every point of it, however minute, represents something, says something, and cannot be replaced or supplied. The dot may be erased from above an "i," or all of them, and the intelligibility of the page not be impaired, but the stereograph depends for its full effect upon the summing up, with great and unconscious rapidity, of a number of such points, by the peculiar assistance of the stereoscope, increased by the magnifying power of the lenses. Specks and masses, often apparently blotches of light and shade, seemingly meaningless in the stereograph, examined without the instrument, assume an exquisite beauty when their full effect is brought out by the instrument. The injuries such pictures receive only reveal themselves in the stereoscope; the surface is not only roughened and dimmed, but the wealth of details rendered available by the magnifying power, and binocular combination of the stereoscope is reduced, and each handling, however carefully done, especially in large packs, inevitably produces its quantum of injurious effect.

But besides injuries from abrasion and other mechanical causes, the photograph is exceedingly sensitive to chemical influences; a creature of chemical reactions, a result of the most delicate and insensible operations of some of the most subtle of nature's agents, it seems to carry with it this continued sensitiveness to chemical influences, and subjection to agencies that do not in the least degree affect the printed page or engraving. Even after the most excessive and conscientious care exercised, in the removal of all traces of the chemicals necessarily employed in its production, the photograph is therefore liable to meet with misfortunes peculiar to itself. It is very sensitive to atmospheric influences. Accidental touches that would leave no impression on an ordinary picture, may, when aided by these, often otherwise imperceptible influences, originate a train of changes that will inevitably mar its beauty and diminish its effectiveness. Many of these possibilities of deterioration may be avoided by the use of large revolving stereoscopes, in which pictures may also be conveniently

classified. But, whilst these are almost necessary for the safety and comfortable use of glass views, few persons having by experience acquired a ready and safe manipulation of such views, they have the inconvenience of not permitting ready reference to any particular picture, as might be frequently desirable in studying a classified collection. If the instrument is large, many pictures must perhaps be passed before the lenses in the search; if it is small, the limited number contained would necessitate too great a multiplication of boxes for even many private collections; and again, but a limited number of individuals could comfortably discuss the pictures at the same time, unless the instrument were placed on a revolving table.

It seems singular, since the stereoscope has passed beyond its first stage of novelty, and has indicated its applicability to the illustration and study of so many subjects, that more effort has not been made to reduce the liability of stereographs to the preceding evils, and at the same time render their consultation easier, and their form more compact, so that they might be arranged in collections as books in libraries, or in libraries with the books they might illustrate. The old card form retains its place just as it came into the market at first. The attempted deviations from the original size are decided exceptions, and can hardly be said to have met with general favor. The mounting of stereographs on stiff cards in this way was almost a necessity at first, that they might be slid horizontally into the old box-formed stereoscope, almost exclusively introduced into the market, and which was regarded as the best; Sir David Brewster, whilst suggesting many other forms, giving it the preference, mainly by reason of its exclusion of light coming from all directions. But the open stereoscope, especially the Holmes stereoscope, seems to have grown into favor, so that without discussing why it is so, it is safe to say, that this form of the instrument seems to possess in the highest degree the conditions necessary to its most satisfactory employment. With it horizontal sliding of the cards has given away to vertical sliding. This is a small matter, but by taking ad-

vantage of it, the writer has adopted the following method of mounting his stereographs, which seems to render their use almost as free from liability to injury of the pictures from mechanical, chemical or atmospheric influences as that of a book, and permits of ready reference to any picture, whilst the space occupied is at the same time very much reduced. A book is formed about $3\frac{3}{8}$ by $3\frac{1}{4}$ inches in size, with a dozen or more rather short guards, upon which double leaves the size of an ordinary stereograph card are pasted like maps. Upon these the stereoscopic pictures are carefully mounted as on a card, and with a piece of smooth paper between the two halves, are subjected to pressure for several hours or more. The books when opened out at any page, can be readily slid between the wire guards of the Holmes stereoscope, as an ordinary stereograph, and with equal effect. The leaves of such a book can be turned over, and it can be slid in and out and packed away without touching the face of any picture with the finger, without mechanical abrasion, and when packed away on shelves, are not as accessible to atmospheric influences. By means of suitable blank forms for a title-page and index for each volume, and a catalogue of the collection, any stereograph could readily be found. Whole collections of subjects of scientific, architectural, mechanical, artistic, &e., interest could in this way easily be placed for public use in any library, and could be readily consulted by simple instruments placed near them, of several forms if desirable, including decentered spectacles, to be placed on the nose, as ordinary ones. Many persons would doubtless carry with them spectacles of this kind specially adapted to their eyes, if such collections were common, whilst many others might rely entirely upon their ability without any instrument at all, to obtain full effect of the stereograph without any discomfort.

There are so few objections that suggest themselves to this plan of mounting compared with the advantages, that it might after a time largely supplant the card, even for general use. Dealers in stereographs at places of natural interest or of resort, might find it to their interest to have prints

mounted in this way, or books in which such pictures as might be selected could be readily mounted, or perhaps pictures might be kept mounted on such sheets, with the name and number on the margin, which it would be the work of but a few minutes to affix to guards in books without such leaves. Leaves of thin paper, for fuller description or comments, could readily be affixed by any one, at any time, to extra guards in the books. The compactness, the convenience of permanent arrangement of stereographs, according to subjects or dates, or localities of collection, &c., would be a great recommendation even to general collectors. The accumulation of stereographs from a European tour would almost acquire a new value in a form so easy of access and reference, and so free from injury.

SOCIETY GOSSIP.

PHILADELPHIA (Philada.), Dec. 3d.—On motion of Mr. Borda, it was resolved that the *Philadelphia Photographer*, beginning with the number for January, 1874, should hereafter be regularly mailed to the Photographic Society of Paris, in exchange for the *Bulletin de la Société Français*, published by the said society.

Mr. Fassit spoke in high terms of some solar enlargements by Mr. Vernon Heath, of London, which he had seen while abroad.

Mr. Bell exhibited a series of city views, made on excess of silver emulsion plates. Also a plate prepared with a collodion containing ten grains of bromide of cadmium per ounce, and dipped for fifteen minutes in a sixty-grain silver bath. The plate was brilliant and clean, and appeared to work a little quicker than the emulsion plates.

A vote of thanks was tendered to Mr William L. Shoemaker for a very handsome donation of a new lantern screen.

Mr. Moore presented an 18 x 22 solar enlargement from a negative by the Secretary. A vote of thanks was tendered, and it was resolved that the print should be framed and hung on the walls.

DISTRICT OF COLUMBIA (Washington), Dec. 2d.—Annual meeting, held at Mr. Johnson's gallery. But little business besides the election of officers for the ensuing year was transacted.

Mr. Alphonso Haynes was elected to membership. The election of officers resulted as follows: President, E. J. Pullman; Vice-Presidents, T. J. Bicksler, J. J. Gardner, and L. C. Dillon; Recording Secretary, C. M. Bell; Corresponding Secretary, S. C. Mills; Treasurer, Clarence Dodge; Executive Committee, S. Ott, M. P. Rice, J. C. Sarmiento, Henry Ulke, and N. E. Bates.

The adjournment was followed by a sumptuous collation, tendered by Mr. Johnson, to whom a vote of thanks was tendered therefor.

The Association has thirty-four names on its roll, and begins its second year in a flourishing condition.

German Photographic Society (New York), Dec. 4th.—A communication was read from the Recording Secretary, Mr. H. Schoene, tendering his resignation, on account of going to Savannah, Georgia, as his future residence. The resignation was accepted, and the Corresponding Secretary was unanimously ordered to express to Mr. Schoene the regret of the Society at losing his excellent services, and to thank him for all his past labors and exertions for the good of the Society.

The Committee of Arrangements reported that every third Thursday in the month from now was set aside for practical studies in illumination and posing.

Mr. A. A. Costelli exhibited a model of his patent conical background, constructed after the same principle as the one of Mr. Kurtz, having a more funnel-like shape though, and being made of cloth, a considerably cheaper material. The great advantage, however, of this ground lies in the frame supporting it, for when not in use it can be put up flat and stood against a wall, occupying no more room than any ordinary ground.

Photographic Institute (Chicago), Dec. 1st.—Mr. Green earnestly requested all the members to contribute papers, &c., on the subject of "Lighting and Posing" for the January meeting.

The President announced the subject to

be discussed for this evening, viz., "The Developer," and requested that as many as possible take part in the discussion.

Messrs. Cross and Greene read papers on the subject (which see on another page), and a general discussion followed.

A member stated that his ideas could be summed up briefly as follows: Having given a long exposure, use a weak developer; short exposure, use a strong developer. For white drapery give a good exposure and use a weak developer; for dark drapery a good exposure and use a strong developer. To obtain contrast, a short exposure and a strong developer. To obtain softness, a long exposure and a strong developer. To obtain delicacy of film, a long exposure and a weak developer. To obtain good body of film (not excessive contrast), a medium exposure and a medium developer. But after all, no rule can be followed, and so much can be done to vary the results by the manner of manipulation, that that which seems elear in theory may not always be so in practice.

Mr. Hesler stated that the greatest variety of results could be obtained by simply varying the quantity of acetic acid; besides, the temperature of the room, as well as other conditions, materially affected the result.

Mr. Cross thought that much could be done to bring detail, when underexposure is the case, by using a small quantity of alcohol in the developer.

Mr. Greene could not see the use of alcohol in the developer for any condition.

NEW ENGLAND (Boston), Dec. 7th.—
The photographic fraternity of this section were invited to attend a meeting of the Boston Society this evening. Some thirty ladies and fifty-four gentlemen responded to the call, and, as Mr. Black remarked, never before had so much beauty and genius been in his studio at one and the same time. Mr. Southworth entertained those present with a display of daguerrectypes taken over thirty years ago; all were pleased with his kind attentions, and the meeting was opened by the President, Mr. J. W. Black, introducing Mr. G. H. Loomis, who entertained those present with a most eloquent address.

We are sorry that the rush upon our

columns prevents us from printing the whole of Mr. Loomis's address. It is full of good counsel, worthy of consideration by all, although written for his associates only, and therefore necessarily of a local nature. After reviewing "photography of other days" in a retrospective way, giving many amusing anecdotes and discussing the various "types" that the art has brought to light, and from light until a "type-us fever" seems to exist, and speaking of the days when our art made "such a call for men and machinery, that the blacksmith left his forge and hammer, the cobbler his last and lapstone, the bootblack his brush and box, each intent upon keeping the supply of artists up to the demand of the times," &c., &c., our orator comes down to the matters of fact of to-day. Touching upon the subject of the public taste, he says:

"I tell you, my brethren, that the artists must educate the public taste to a higher order of work, if they would have this same public become the patrons of something better than the poor productions I have alluded to. Why, let me ask in all sincerity, has the art we practice been so questionable in character and results, as to make it a matter of difficulty for art critics to assign it a place in the calendar? Why has photography been denied its rights to recognition as a fine art, unless it be that those who are its exponents and representatives have been weighed and found wanting? * -X-

"We may as well restate the simple fact, that since photographers themselves have begun to desire a better appreciation of their labors, they are securing it, and since there is a diminution of disreputable work, there is a corresponding confidence growing up in our favor.

"As to portraiture as practiced by those who pride themselves on speaking likenesses, because, forsooth, their subjects sit for hours and days in the artists' studio talking while being sketched, we are not disposed by any means to shirk the comparison. Who does not remember the pink, white, and blue caricatures which once dangled on the necks of our mothers and grandmothers, and the stiff, heavy, and cumbersome daubs, inclosed in massive gilt, which helped cover the

walls in the mansions of our first families? These, indeed, were the products of the old masters, and we were called upon to indulge in exclamations of admiration, though our five senses all rebelled at once.

"All the old masters self-styled were not prodigies, in fact many of them were hardly passable, as we use the phrase, and yet they roosted in fine art galleries. It would have been a shocking violation of taste doubtless, but not of the scriptural decalogue, to have worshipped their works, since they were not 'the likeness of anything' in the heavens above or on the earth beneath.

"As showing the march of progress, we have only to observe that a large majority of these family portraits have found their true place in the order of things, and have gone up from one to three flights in popular estimation, resting at last in the upper chambers and attics of all well-ordered dwellings.

"We are in no mood to cultivate other than the most cordial and friendly relations with those who claim so much in a name, for we know that 'a rose by any other name would smell as sweet.'

"If photography is not a fine art, why then let us make it one, for, indeed, such it deserves to be, and our brethren of the palette, brush, and easel, if they cannot in the generosity of their hearts recognize us as equals, let us still on and up until they shall acknowledge us as their superiors.

* * * * * * *

"I have now a few thoughts about the living present and the hopeful future."

* * * * * * *

Here Mr. Loomis commented upon the ugly competition that some of the craft allowed to occur, and upon the advantages of a schedule of prices, at least in the city of Boston. On this latter topic he said:

"What we particularly wish to impress in this connection is the desirability of a more elevated standard of prices, as well as workmanship, not presuming that we can adopt a schedule that will secure unanimity of opinion or unanimous adoption. Some of our people have gone into the club business, and have delegated one in every dozen of the population of their several localities

to act as agents or drummers. The very best of everything is offered at half price at the same counter where double the half is demanded of those who are without the club password. This perhaps is good business strategy, and may for awhile add to the financial exchequer, but there is a great liability to a disagreeable reaction."

A round of amusing anecdotes of photographic practice followed this; a good "fatherly" lecture to the New England craft, on the advantages of their Association and their duty to support it, and then, amid frequent applause, he closed as follows:

"I am aware that the practical duties of the photographer lead elsewhere than in literary paths, and give him but limited opportunities for oratorical display, and yet in the exercise of his functions as chemist and optician he is constantly acquiring new and interesting facts which, in communicating to others, need no forensic preparation.

"Mr. President and brethren, I have 'spoken my piece,' and with that charity which 'suffereth long and is kind,' you have endured patiently to the end."

Mr. Loomis was greeted with rounds of applause, after which the President introduced a friend, who interested all present by reading several poems. He was repeatedly encored. After the readings, the President entertained the visitors with a splendid display of the stereopticon slides; the views were made in the polar regions by Dr. Hays and J. Dunmore. Dr. Hays, who happened to call on Mr. Black on business, was seized by the President, who would not let him leave until he had given a thrilling description of his travels among the icebound regions. The Doctor told many tales about the inhabitants of the Polar Seas, and his great description of his bear fight brought down the house (almost). Dr. Hays complimented Mr. John Dunmore for his wonderful success in having produced such remarkable negatives of the Arctic regions, for they were, without doubt, the best ever made of that part of the earth, and as Mr. J. W. Black had reproduced them for use in the stereopticon, the people could now form some idea of the

regions near the north pole. After Dr. Hays had closed, Mr. Black exhibited on the screen the Landy and Rhoads babies.

PENNSYLVANIA (Philadelphia), Dec. 16th.—Held at the rooms of Messrs. Trask & Bacon.

The Committee on Medal reported that Mr. Harrison Krips, having presented the best sample of work, a fine card of an old gentleman, was entitled to the medal.

The election of officers for the ensuing year resulted as follows: President, Mr. H. C. Phillips; Vice-Presidents, Messrs. A. K. P. Trask, H. F. Smith, Gerhard Schreiber; Treasurer, John R. Clemons; Secretary, R. J. Chute; Corresponding Secretary, E. L. Wilson; Executive Committee, Messrs. B. F. Saylor, John Carbutt, W. H. Rhoads, J. G. Tyson, W. G. Entrekin.

Mr. E. L. Wilson presented for inspection a very fine collection of prints of various kinds and sizes, collected by him during his recent European tour; they were greatly admired. The "Rebecca" of Mr. Valentine Blanchard, of London, created much praise.

At the suggestion of Mr. Wilson, a committee—Messrs. Wilson, Rhoads, and Chute—was appointed to confer on the subject of having a course of art lectures delivered before the Association.

Mr. Wilson extended a general invitation to the members of the Association to the anniversary of the tenth year of the publication of the *Philadelphia Photographer*, which was accepted.

Mr. Schreiber presented for inspection a solution manufactured under a patent that, it was claimed by the manufacturers, would precipitate silver from hypo waste solutions quicker and cheaper than sulphuret of potassium, and it was claimed that it would not conflict with the Shaw patent.

Mr. W. G. Entrekin, of Manayunk, presented for inspection a number of samples of the result of enamelling by his new burnisher, which certainly were superior to anything yet seen, and to prove that his patent was valid and not conflicting with any other, two letters were read from Mr. C. M. Parks, formerly chief examiner of the Patent Office, which explained that the

invention was original, and none need fear using it.

Mr. John R. Clemons read some extracts from Regnault's *Chemistry* proving from authority of various authors, that the use of the material claimed in the Shaw patent was known and published years before his patent was obtained, viz.:

In Regnault's *Chemistry*,* page 299, volume 2d, paragraph 1121, 14th line from the top, we read as follows:

"Protoxide of silver has so great an affinity for hyposulphurous acid that it abstracts it from potassa and soda. oxide of silver be digested with a solution of hyposulphite of soda, a considerable proportion of oxide of silver dissolves, and the liquid, when evaporated, yields crystals of the double hyposulphite of soda and silver. The chloride, bromide, and iodide of silver also dissolve readily in a solution of hyposulphite of soda, and after evaporation the liquid affords the same crystals of double hyposulphite. The solubility of the chloride, bromide, and iodide of silver is applied in photography to the fixing of the image; that is, to the removal of the compounds of silver from the parts which have not been acted on by light. Solutions of the double hyposulphites when boiled give off sulphide of silver, and sulphate of soda is formed. The hyposulphites of silver can be obtained isolated, in the form of a white powder, by pouring a solution of hyposulphite of soda into a solution of nitrate of silver; but the precipitate soon blackens in the light, sulphide of silver being formed."

In Regnault's *Chemistry*, page 300, volume 2d, paragraph 1124, 19th line from the top, we find as follows:

"The same sulphide of silver is produced by the humid way, when a salt of silver is precipitated by sulphydric acid or by an alkaline sulphydrate."

Also, in Regnault's Chemistry, page 388, volume 1, paragraph 332, 8th line from the top, we find as follows:

"A great number of metallic sulphides

^{*} Published in Philadelphia by Parrish, Dunning & Mears. Translated from the French by Thomas Betton, M.D., with Notes by James C. Booth and William E. Faber. 1852.

can also be prepared by passing a current of sulphuretted bydrogen through a solution of the metallic salts, especially insoluble sulphides from metals of the 5th and 6th sections.

"Sulphides from metals of the 3d section may also be prepared in the humid way, by pouring a solution of alkaline sulphide into a saline solution of the metal. Thus, with sulphate of the protoxide of iron and monosulphide of potassium, the reaction is," &c., &c. Twenty-fifth line from the top, "Metallic sulphides resist powerfully the action of heat, there being only a few sulphides of the sixth section which are decomposed at a very elevated temperature."

Mr. A. K. P. Trask exhibited one of Newell's patent field baths, wooden, and lined with the Newell's patent coating. It was commented upon very favorably.

Messrs. Gilbert & Bro. offered the use of their room for next meeting, which was accepted.

Thanks were offered Messrs. Trask & Bacon for the use of their room.

CHICAGO PHOTOGRAPHIC ASSOCIATION (Chicago), Dec. 3d.—Twenty members present.

The following letter was read from Benjamin French, Esq., Boston: "I see you have a good deal to say at your meetings about paper blistering. I would suggest to you to try always a fresh bath of hypo every day, and be sure it is of the same temperature as your gold bath, not colder. If your hypo bath is a little warm, and not too strong (it has been suggested to me), blisters will not come, nor will they come in a fresh hypo bath of same temperature as gold bath. I don't suppose this is new to you, but thought it would be no harm to see."

Mr. Alfred Hall then read his paper on Chemistry, illustrated by Youman's Chemical Chart and Blackboard Exercises. This paper showed most careful preparation, research, and study, and was listened to with great attention by the members present.

On motion, a vote of thanks was given Mr. Hall for his entertaining paper, and he was requested to continue the subject at his earliest convenience.

Messrs. Hall and Hesler spoke in most

flattering terms of Dr. Vogel's *Pocket Reference-Book*, of its great value to every photographer, and expressed the hope that it may soon be found in every gallery.

DEVELOPMENT.*

BY D. H. CROSS.

The proper development of the photographic impression involves a certain degree of dexterity in manipulation, as well as intelligence concerning the nature of the agents employed. Attention to composition, lighting, and exposure is of course very important, but this will avail little if the process of development does not receive its full share of attention. When the lighting and exposure are known to be faulty, there is at least a partial remedy in development. A knowledge of the nature of the agents used is important at the outset.

Protosalts of iron being used almost exclusively for development proper, I shall allude to them only.

The effect of protosulphate of iron, when used alone is to give an image full of detail, but flat, gray, and devoid of contrast. The effect of acids of all kinds is to retard the action of the iron, and give contrast or vigor. Acetic acid is used almost exclusively of late, both as a retarder and to give flowing properties to the solution. Formulæ are of little use, except as startingpoints, and as such I give one as good for a normal developer as any with which I am familiar.

Prepare a saturated solution of iron in water, and keep a sufficient quantity in readiness, as it will keep indefinitely. Prepare a second solution, 25 grains to the ounce of water (a common hydrometer is convenient and sufficiently accurate for this purpose), add 3 or 4 ounces of acetic acid to 20 ounces of this solution; ordinarily, alcohol is not required. When it is to give flowing properties, the nitrate solution, "silver bath," should be partially evaporated. The person who develops should keep constantly in mind the strength of the light, the length of exposure, and the char-

^{*} Read before the Photographic Institute of Chicago.

acter of the lighting. If the lighting is soft and diffused, exposure may be shorter and developer stronger of acid, and the plate rocked more than if the lighting is decided and bold. If the lighting is decided and bold, the exposure should be longer and the developer stronger of iron, and the plate should be held quite still. The quantity of developer used affects the result; the lesser quantity gives greater contrast. A weak developer should be used copiously, and the plate held still when great delicacy and softness is desired. Close observation and quick decision is required just at the moment development has commenced. We should be in readiness with weak and strong developers, to vary the quantities of solution in the plate, and to vary the proportions of acid and iron, and to rock the plate or hold it still, as the effect requires. Generally some or all of the above means will enable us to produce the effect desired; sometimes, however, in large work there will still be too much contrast; if so, add a few drops of alcohol to the ounce of developer before flowing the plate, and I think this fault will be effectually cured. Never having seen this remedy for excessive intensity used or mentioned, I would call attention to it as one of the most effectual and convenient at our disposal. Indeed, it is so potent an antidote for hardness or chalkiness that care must be exercised or flatness will result. The larger the proportion of alcohol within certain limits, the softer the re-

A general fault is underexposure; there is no remedy for very short exposures, and there is little danger of overexposure. A negative that is thin and flat may be made more contrasting and intenser easily with pyro and silver. We will now strive to increase contrasts. This may be done by short setting the collodion film, and short immersion in the bath, add acid to the developer, use little developer, and rock the plate. Use more silver in the pyro when redeveloping, or increase the proportion of acid in the pyro. I think that there is too much reliance on formulæ. We should learn the effect of each ingredient, both in excess and deficiency, and depend more upon judgment and of the effects now produced, and correct remedies will soon suggest themselves to the careful observer.

Hoping that the above may benefit some co-laborers in our beautiful art, I remain very truly, an interested and humble devotee of our art.

THE DEVELOPER.*

BY P. B. GREENE.

What I have to say on the subject of development will be but little; I will simply tell you how I work.

I have tried nearly all the dodges of using other substances in connection with protosulphate of iron, such as sugar, rock eandy, epsom salts, gelatin, double salts of iron and ammonia, &c., but have always fallen back on simple protosulphate of iron and acetic acid. I have come to the conclusion that other things are only an extra expense, and of no use only to retard the action of the iron, that the same results can be obtained by using a weaker developer, and save the cost of the other ingredients added as retarders.

My formula for preparing the developer is as follows:

STOCK SOLUTION.

Protosulphate of Iron (pulv.), . 1 pound. Warm Water, 2 quarts.

For everyday use take 8 ounces of stock solution and 3 ounces of acetic acid, filter into a quart bottle, and fill up with water, making it in strength 2 ounces of iron to the quart.

This is the strength I prefer for ordinary purposes. Sometimes you may require it stronger or weaker; that you can vary to suit your work in hand. The shorter the exposure the stronger you want your developer; for that reason it is a good plan to have a bottle of developer in your darkroom, the full strength of the stock solution with acetic acid added, 3 ounces to every 8 ounces of stock solution.

The method of using will depend very much on the subject in hand; as a general thing the stiller you hold the plate and keep it covered with the developer, the better will be the result. If you see the image is

^{*} Read before the Photographic Institute of Chicago.

coming out too thin in the high-lights, rock the plate so the developer will wash out the silver in the shadows, and deposit it on the high-lights, but if it shows too much contrast in light and shade, hold as still as possible, so as to retain all the silver in the shadows that is possible. For solar negatives I should flow the developer freely, so as to wash off all the surplus silver from the plate, then hold still, and let the image come out fine and even; I never use any alcohol if I can possibly help it. I prefer to work over my bath and free it from the alcohol, than to try to work a bath that you are compelled to use alcohol in the developer with.

In landscape work I always carry a saturated solution with the acid added, and reduce as I want to use it. I have two reasons for this. 1st. It is less bulky and lighter to carry. 2d. We are compelled to vary the strength more in outdoor work than you are in gallery work. Sometimes, for instantaneous work and very poorly lighted interiors, I use the full strength of the stock solution. Also, in the woods, where the foliage is very dense, you are compelled to use a strong developer to obtain detail, while, on the other hand, if it is pretty much all light, I use a very weak developer. The stronger you use the developer the more detail you will get, while the weaker, the more contrast.

I do not wish to be understood to say that strong developer makes the best work, for the quicker the development the coarser will be the deposit of silver. Therefore use your developer as weak as you can, and obtain the proper amount of detail.

New Silver-saving Apparatus.—Messrs. Morgan & Fuller, Norwich, Conn., have shown us a working model of Laighton's automatic silver-saving apparatus, which is very ingenious and seems to work like a charm. It measures out the chloride as needed, and empties it into the developer waste, and the silver is caught on a false bottom, while the water goes down the sink. This apparatus is not an infringement on any other, we believe, and photographers who use it are no more liable to Mr. Shaw than they are if they use an ordinary bucket. The two patents do not clash at all in our judgment.

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues.

All remittances of back dues, and fees, and dues for new members should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Life Member.—The following has been made a life member by the Executive Committee: J. Holy Land, Baltimore.

mittee. 9. Hely Enila, Baltimore.										
Debt Fund.—Contributions heretofore ac-										
knowledged, .				. 5	\$240	50				
J. Holy Land,					3	00				
W. J. Baker,					15	00				
A. McCormick,					2	00				
				Ş	\$260	50				

The Executive Committee met at the office of Messrs. Benerman & Wilson, December 19th, Messrs. Adams (chairman), Bogardus, Rhoads, Moore, and Wilson being present. The subject of the indebtedness of the Association was considered at length, and referred to the Secretary and Treasurer to report at the next meeting.

The next Convention at Chicago was also discussed, and the Secretary was ordered to confer with the Local Secretary and report.

A communication from the United States Centennial Commission was read, acknowledging the application of the National Photographic Association for space for the exhibition of photographs.

Mrs. Lockwood's insurance project was likewise brought up, and further correspondence with her ordered.

A resolution was passed, directing the Secretary to issue a circular letter to the Vice-Presidents of the Association, asking them to strive to influence their several State legislatures in behalf of art education, &c. Also to ask their co-operation in removing the debt of the Association.

The Executive Committee now have a grave responsibility pressed upon them, and hope the members of the Association will not hamper their actions by keeping them in debt. They are working constantly and

earnestly for the craft, and trust to you to stand by them.

AN EXPLANATION.

LOUISVILLE, KY., Dec. 20th, 1873.

"HE that hath ears to hear let him hear," and if possible understand also, Shaw's patent and the National Photographic Associa-After reading the communications thus far published in regard to the action had at Buffalo, and after having received several letters bearing upon the subject from various photographers throughout the country, I am convinced that what was done at that time was not fully understood, and that a brief explanation is called for. The National Photographic Association, as a body, refused to entertain or to act upon Mr. Shaw's propositions, but left the matter to be discussed with Mr. Shaw after the adjournment of the session, inviting all who felt an interest in the matter to meet at 7 P.M., at which time he (Mr. Shaw) would have his papers, that we might gain information of his claim or claims, in order to enable us, as individuals, to act understandingly in the premises, for be it known that a very large proportion of those present were entirely ignorant of his claims. I positively knew nothing of them whatever. At the appointed time there was a goodly gathering, and when ready for business, Mr. Shaw stated that he had not been able to find the papers he wanted, whereupon a committee was appointed by those present (and not by the N. P. A.) to meet Mr. Shaw at another time, when he would be ready with his papers. This committee met Mr. Shaw the next day, and the result of that conference can be seen in the "supplement" of the September number of the Philadelphia Photographer. The National Photographic Association were not in any way responsible for the action of this committee. The whole object was to bring out Mr. Shaw's whole claim, and nothing more. This committee recommended no action beyond suggesting the publication of Mr. Shaw's patent in full together with Mr. Bell's opinion upon its merits. Now when the accusation comes up "that your committee have not given the matter due consideration, and have acted on a supposition," &c., &c., I see that the object

of this committee is not understood. We were not investigating the merits of Mr. Shaw's claims, and by reading the suggestion of the committee again, it will be seen that they only wanted to get Mr. Shaw's whole claim in print, that all could study it, and then when approached by Mr. Shaw on the subject they could, as individuals, treat with him understandingly. I have in my possession a letter from an intelligent gentleman and photographer, in which appears this strange passage, viz.: "I believe you are on the committee to decide whether the Association will purchase Shaw's patent on the terms which he proposed at the Buffalo Convention or not, and give him an answer on or before the first day of January, 1874." There was no such committee appointed, and as a matter of course I could not be on it. There is still another point to which I wish to call attention. In recommending all to treat with Mr. Shaw as individuals it was not contemplated that they should do so in communications published in the Philadelphia Photographer or any other journal, although it is not for me to dictate a course to be pursued by any one. I simply throw out this suggestion.

I. B. Webster.

GERMAN CORRESPONDENCE.

The Sensitiveness of Bromide of Silver to Color—Abnormal Stereoscopic Pictures.

THE Vienna Exhibition is over. Those who have visited it have had an opportunity to learn; at least they could find out how many things should not be done, and satisfied or dissatisfied, according to the ideas of the spectator, we return to our everyday life. I, for my part, feel glad that I can work again for the advancement of photography. Problems are not wanting; indeed, with every advancing step our art presents new riddles; such a riddle is now before me. A short time ago I experimented with the colors of the spectrum. My intention was to find out what effect an alkaline development had on the plates. My experiments of last summer had convinced me that this development is capable of showing more detail than an acid development. The cause of this must be bromide or chloride of silver, for it is well known that the alkaline developer has no effect on iodide of silver. Schultz-Sellack has made a special study of the action of the spectral colors on iodide, bromide, and chloride of silver, employing the ordinary acid developer. We learned through him that bromide of silver is affected by violet indigo blue, but no further, for he says its action extends nearly to the spectral line F. This line is situated near the boundary between blue and green. Judge of my surprise when experimenting with Wortley's bromine collodion and an alkaline developer, I found that the action had extended not only into the blue, but even beyond into the green and yellow, and only stopped when red was reached. I obtained this effect with ten minutes' exposure, whilst Schultz-Sellack extends the time of exposure sometimes to fifteen minutes. This effect, extending almost to the red, was of course but feeble, and I could not base upon it a hope to draw from it a practical advantage. But I observed another peculiarity in these spectrum pictures, which has not been noticed before; a more energetic action had taken place in the green (near the line F) than in the blue (at the line F). This shows that Wortley's plates are more sensitive to green, a less refrangible color, than to the more refrangible blue, while otherwise we are accustomed to assume the reverse.

The greatest peculiarity is that plates which have been made with bromine collodion and the silver bath do not show this sensitiveness. I have tried this repeatedly, both with acid and alkaline development. The sensitiveness extended much further than stated by Schultz-Sellack, for the plates were affected as far as F (the boundary between green and yellow), but the sensitiveness decreased gradually from the blue, and of an increase in the green no trace was noticeable. Although I do not know as yet the reason why the Wortley plates are more sensitive to the green than to the blue (I suppose that the amount of uranium has something to do with it), and more sensitive than ordinary bromine plates, still it is important to know that there are certain preparations which show a greater sensitiveness to otherwise ineffective colors than our ordinary plates, and we may hope that before long we will have plates which are sensitive to the red and yellow rays. This would overcome the disagreeable abnormal action of colors, which not only disturb us in taking copies of oil-paintings, but also in portraiture; for the red lips, the rosy cheeks, the blonde hair, not to mention freckles, &c., these are all abnormal colors, and we would have to despair if it was not for the retouch. Unfortunately, at the present season of the year, sunlight is so scarce that I will have to postpone further investigation to some future time. More anon.

Peculiar abnormalities of another kind have recently been noticed by Mr. Hartman, the worthy successor of Mr. Petsch. A few years ago one of their correspondents called attention to the fact, that in Loescher & Petsch's celebrated stereo "Gems of German Life," the figures on the right side of the picture are a little larger than those on the left side, and asked them the reason why. I explained it by the difference of the lenses; one of the objectives of Loescher & Petsch's camera has a longer focus than the other. In the "Gems of German Life" the difference is small; one set of the figures is perhaps one-tenth larger than the other set.

Mr. Hartman exhibited a large lot of stereos in our Society, all of which were faulty.

On the left half, for instance, the figures were one-fourth larger than on the right half, and the two halves were sometimes one inch too far apart; in other instances one inch too close together; in others the two pictures were not parallel to each other: but, strange to say, all these pictures combined in the stereoscope. The pictures were plastic, and it would almost seem as if it was not necessary to be so very particular in mounting these prints; but this is not the case. Although all these faults, mentioned by Mr. Hartman, did not interfere materially with the stereoscopic effect, still there are many stereos offered for sale which in the stereoscope will not come together except by an enormous exertion of the eyes. It is not easy to say what the faults are; in many cases the camera has been placed in the wrong position. In landscape pictures, for instance, the position of the camera for

the left picture differs sometimes ten feet and more from the position for the right picture. The background appears, of course, very plastic, but the foreground suffers, and it becomes very difficult to bring the two pictures together. Occasionally something similar happens when we work with a camera the two objectives of which are placed at a distance equal to the distance between the two human eyes, and this is generally considered as the correct method. Mr. Prim took recently a bouquet of flowers with such a camera, the bouquet being placed at a distance of ten inches. It was difficult to bring the two pictures together, and the plastic effect was exaggerated. Mr. Hartman explains this, and perhaps justly, by stating that the axes of the two eyes in contemplating such an object converge considerably, while the axis of the lens remains parallel; and this has certainly an influence on the picture.

BERLIN, Nov. 1, 1873.

[The above letter of Dr. Vogel reached us too late for our December issue.—ED.]

SECOND LETTER.

The Sensitiveness of Bromide of Silver to the so-called Non-actinic Rays. — Before I commence I have to apologize that in this letter I will be compelled to speak only of my own investigations. My name is Vogel (English, bird), and as the species is not discernible from the generic name, everybody is at liberty to call me today a "cuckoo," who all the time speaks of himself. To quiet the apprehension of the reader, I will say, however, that I will not speak of my person but of my latest experiments, which had for their object, to see if the photographically ineffective red and yellow colors could not be made effective. These experiments have led to results which may be of importance to the progress of photography.

The yellow, red, and blue colors have always been the bugbear of photographers. The dark appeared light in the picture if it was blue, the bright appeared dark in the picture if it was yellow, green, or red; all this is well known, and I have only to mention incidentally blue eyes, which appear watery pale; blonde hair, which often looks black, and the more golden it is the blacker;

yellow freckles, which look like dark spots, in order to demonstrate the difficulties which colors eause us in photography, not to mention blue and yellow dresses with red or green trimmings.

I also call attention to the results which we obtain in landscape photography, from a blue sky with white clouds, from green trees and a yellow glowing sunset. If by a carefully selected time of exposure, skilful manipulation, and negative retouch, we overcome some of these abnormal actions of colors, still we cannot remove the effects entirely; they are there, and it is only necessary to compare a photographic copy of an oil painting with the original, to see at once the faulty action of color. My friend Petsch declared a year ago, that he would turn his back on photography, as it did not come up to his ideal; it would always be hampered by the action of color. that time I did not believe myself that we would overcome this difficulty so easily; today I can state with certainty, that it is possible to fix the so-called inactinic colors, yellow, red, and green, as effectively as blue and violet. In my last letter I communicated to you the results of my investigations with Wortley's bromide of silver plates. I found when I exposed these plates to. the solar spectrum, that they were more sensitive to the green light than blue, and I inclined to the belief that this was owing to the action of the alkaline developer which is employed with these plates. To ascertain this fact I tried the acid developer with sulphate of iron and nitrate of silver, and the result remained the same; the alkaline developer could therefore not be the cause. In order to determine this question definitely I prepared some bromide of silver plates myself, and exposed these to the spectrum; there was some action in the green, but not stronger than in the blue; on the contrary, it was feebler. I soon found the solution of the riddle. I experimented with iodide of silver and bromide of silver plates, and I soon noticed that the bromide of silver dry plates had a slight but much further extending sensitiveness for yellow and red than the wet ones. No doubt remained, that the coating of the plates exercised an influence on the sensitiveness for color.

Schultz-Sellack states that the sensitiveness of bromide of silver extends only as far as the line F of the spectrum, i. e., for light blue but not for green; on the other hand, Draper and others have maintained that bromide of silver is sensitive to green. Wortley recommends great caution in working with bromide of silver plates, and to exercise particular care in lighting the dark-room; and indeed, when I exposed bromide of silver plates to the spectrum, I found them sensitive to all the colors, even to red. Fortunately this sensitiveness is but slight, and with care we have little to fear. This feeble sensitiveness for red and yellow which I have established, is therefore of but secondary interest; the case, however, is different with green, in so far as the sensitiveness of the Wortley plates for this color is greater than for blue. My experiments with iodide and bromide of silver, led me at once to suppose that the coating of the Wortley plates must have something to do with it, and in order to determine this point, I washed a plate with alcohol and water before exposing it; the sensitiveness for green had disappeared. Still more was I surprised, that several plates which had been sent to me from England, did not show this peculiar sensitiveness either.

To my mind there remained no doubt that the sensitiveness of photographic plates for color is influenced by the coating, be it nitrate of silver or some other preservative. Last year I published a number of investigations of sensitizers. I showed that if a substance was employed to make a photographic film more sensitive, for instance, iodide of silver, it ought to possess two qualities: first, it ought to be capable of binding iodine chemically; secondly, it ought to absorb the light which acts photographically on the plate. An example is pyrogallic acid. If a solution of pyrogallic acid is put upon a dry iodide of silver plate, the latter does not become more sensitive but less so, because the plate is made more transparent by the pyrogallic acid, and allows the chemical rays to pass through it. If, however, the solution is allowed to dry, the plates which have been impregnated with pyrogallic acid show a greater sensitiveness than the others, for now the plates absorb the chemical light powerfully, and the pyrogallic acid at the same time favors decomposition, by absorbing the iodine which is set free through the action of light. Optical and chemical absorption should hence go hand in hand in order to qualify a substance for a sensitizer.

After knowing all this I had a right to suppose, that a substance which was capable of absorbing green light to a greater degree than the blue, while it at the same time fixed chemically, iodine and bromine, would also be capable of increasing the sensitiveness for green. I did not find such a substance at once; I examined several dyestuffs with the spectroscope, and found one which absorbs the yellow light to a greater extent than the blue; this substance is coralline. If my theory was correct, this substance when placed upon a bromine plate ought to increase its sensitiveness for yellow. I made the experiment, and to my great joy I found my supposition confirmed. The plate which had been prepared with coralline was sensitive to the indigo of the spectrum! From here the sensitiveness decreased until light-blue was reached, from whence it gradually increased and became in yellow as powerful as in indigo. I had succeeded in preparing a plate which was as sensitive to yellow, which has heretofore been considered as inert, as to blue, formerly considered the most energetically acting color. But, you will say, one experiment is no experiment. I state, therefore, that I have prepared plate after plate with coralline, and the result has been always the same. Yes, more, I found a sample of commercial coralline which was distinguished by an extraordinary powerful absorption of yellow light. I coated a prepared plate with this specimen of coralline, and to my surprise I obtained a picture of the solar spectrum, which was interrupted. The sensitiveness decreased from indigo to blue, stopped at the boundary of blue and green entirely, i. e., at the line F. Here the plate had not been affected at all. The action commenced again where the yellow light of the spectrum had fallen upon the plate, and continued as far as the red.

This placed my supposition beyond the pale of doubt, and I tried, after having made a collodion sensitive to yellow light,

how I might prepare one sensitive to red light. Different materials were examined with the spectroscope; finally I found an anilin green which absorbed the red of the spectrum with great energy. A bromide collodion was treated at once with this anilin green, and plates prepared with it. My hopes were realized. The plates proved sensitive as far as the red color of the spectrum. The picture of the spectrum was very curious. The action of the indigo color and blue was very strong, but gradually decreased towards the green, and disappeared in the yellow almost entirely; in the orange it recommenced again slightly, and became very energetic in the red.

After all these experiments, I believe that I am entitled to the conclusion that wé are able to make bromide of silver sensitive to any color; it is only necessary to add to the bromide of silver a substance which absorbs the color in question, and which at the same time promotes the chemical decomposition of bromide of silver by light. It is well known that even beyond the red, invisible rays exist, as well as beyond the violet; the latter exert a strong chemical action-not so the former; but I feel strongly convinced now that it will be easy to make them chemically effective. The term actinic and nonactinic does not exist any longer. In order to find in how far this has been practically confirmed, I made the following experiment.

The picture of a blue ribbon on a yellow background was taken. With an ordinary iodide of silver plate I obtained a (positive) picture, representing a white ribbon on a black background. A coralline bromide of silver plate was tried next. It was natural that on such a plate the blue and yellow should be marked equally strong, and the result would have been nothing. I now placed in front of the objective a piece of yellow glass; through this plate all the yellow light could pass, but not so the blue; and I now obtained actually a strong impression of the yellow color-in fact, the result was a positive, representing a dark ribbon on a light background.

So far as my experiments have extended, they have established the principle according to which photographic films can be made sensitive to so-called nonactinic colors. It will require, of course, numerous experiments, in order to establish those conditions which necessarily have to be observed to make this new invention practically useful.

You may perhaps ask if I have made also experiments with iodide of silver. This is actually the case, but it has not proved as advantageous as bromide of silver, and has besides the drawback that it is too sensitive to blue light; the latter can, however, be diminished. If, for instance, we wash an iodide of silver plate, its sensitiveness for blue is considerably lessened, but it still remains strong enough to exceed that for any other color. Curious it is that a washed iodide of silver plate displays a different sensitiveness for color than a fresh one, and the latter differs again from a dry plate.

With the aid of the photographic spectral analysis we approach the solution of the riddle of the dry process, and further investigation will probably furnish very interesting results for the practice of pho-Yours, very truly, tography.

Dr. H. VOGEL.

August

BERLIN, Dec. 1, 1873.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.



last for A broken-down photographer. a jour-

ney across the water and a ramble among the things abroad, my condition was much like that of an overdeveloped negative, i. e., niv image was flat and weak, and lacked strength. I kicked against work, on account of having had too much of it to do, and work retaliated and kicked against me, as it does al ways against a broken-down photographer. Moreover, the desire to be useful in the interests of photography on the occasion of our great Centennial Exposition in 1876 gave me the desire "to see how they do things in Vienna," and under all the circumstances I concluded that the very best thing I could do would be to lay down the pen, kick over the tripod and give it a rest, and make a journey abroad. To guard against defrauding my subscribers in thus absenting myself, I promised inwardly that I would devote myself to their interests as much as possible while I was away, and keep an eye and a note-book always ready for their service. This I did; and dropping the customary cditorial garb-we-that I may write more freely, I will endeavor to give more details of what I saw than I could give in the letters written while away. You must also forget the customary editorial dignity, and look upon these chapters as coming from one of your number, for that I am. I will pour the whole journey into a funnel with a very dense filter and give you the residue, not promising, however, to be strictly photographic always, though I shall strive to adhere to the picturesque generally. I shall not soon forget the leavetaking that preceded my departure. President Bogardus and members of his family, and Mr. W. Irving Adams, of Scovill Manufacturing Company, were good enough to come to the dock to wave a parting salute. Some delay occurred in the sailing of the "Cuba," and a storm came up which "spoiled the hilarity of the occasion."



As the great ship moved down New York Bay.

the great ship moved down New York Bay the last thing I saw was these good friends; and Mr. Adams particularly, who stood crouched behind a great wharf-post waving his handkerchief until we could see each other no longer, for to be equal with him, I stood astern in the rain until my handkerchief must have appeared very small to those "I left behind me"

After two days the voyage was a most agreeable one (for those who like sea-voyages -I do not), and as descriptions of seavoyages are monotonous, I will leave mine to conjecture, and at once jump ashore on the other side of the Atlantic.

I was the first of the passengers or crew to step ashore, which was at Queenstown, Ireland, and as I did so I began to feel my promise, and soon realized the fact that when one goes to Europe as I did, with limited time and a desire to see all that could be seen in that time, the thought that there are three or four thousand at home who expect a report of all seen useful and interesting in their profession, he feels very much as if he was tied to somebody's apron-string. This feeling I had during my whole journey, and as soon as I set foot on dry land I began to hunt up "subjects." Europe is, of course, most interesting to a stranger, and although we are all accustomed to seeing people of all nations living among us, yet there is nothing like seeing them in their "native element." If you love the picturesque there is much there to gratify you. I recognized the "Irish language" imme-

diately in the first outburst which I heard of it. It came from the lips of a model boy, a genuine specimen, who wanted "a copper, sir, to pay for a night's lodgin'." This request was made with so much real modest good nature and sweetness that I stopped to con-



A model boy.

verse with the young gentleman. Alas! for me. No sooner done than a troop of others gathered around, repeating the same request. I had to give them all employment eventually, declaring it to be against my principles to encourage idleness.

model said he "could sing, sir," so I got him to sing while I took his picture, and gave the others something to do. As I have before stated, my jaunt through Ireland was only a brief one. Dublin was my objective point there, and I found scarcely a more interesting city in my whole journey. The people seemed to have the idea that Americans are constitutionally weak, or else it was their extreme politeness that caused one to be greeted on all sides with "Will ye ride, sir?" from all sorts of people, with all sorts of vehicles, and all sorts of animals to drag them. The donkey is one of the principal productions, and "never dies." The

streets are full of genre pictures, and abound in food for the camera, and so is it with the country itself. The little thatched cottages, the old castles, the drooping, dreamy, mossy foliage, the luxuriant ivy, the verdant hedges, and the tiny fields, the little lakes and the rivers are all most picturesque. Ireland is beautiful! After leaving it; a day or two in Scotland; and as much in London and Paris, to which places we shall return, I proceeded to Brussels, which is Paris in While it is full of beautiful new streets and boulevards, and magnificent structures of modern build, there is so much of the old-time people and of the old-fashioned buildings left, that one has constant enjoyment in whatever direction he may travél. I also made my first acquaintance with the "old masters" here, for in Brussels are several extensive galleries, where are some handsome works of art. But in the streets one may see the gayest equipages filled with fashionable people, flying along, and the drollest looking dog-carts driven by the most primitive-looking peasantry; side by side, with the gayest of the gay, in the richest promenades, we see the old Flemish people with their rude costumes and their wooden shoes. To see girls dressed in the clothing of the other sex is no novelty. I saw a great girl of fourteen, bare-headed,



along the street,
knitting, and dressed in a masculine
garb, apparently the
clothes of a larger
brother. Her wood-

walking

and with long plaits

down to her waist,

en shoes were suffi-

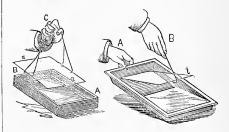
leisurely

ciently large for a silver saving apparatus. Full of such scenes as these are the streets of Brussels. In architecture, too, there is much to delight one—the magnificent old Gothic Hotel de Ville, the new Bourse, the grand old churches with their carved work

Photography there is carried to a very high state of perfection. The carbon process, the burnt-in enamel process, and the enlargement of pictures are practiced considerably. I saw some beautiful portraits,

and sculpture, &c., &c., are all superb.

and inspected several establishments. The studios are, in construction, much like our own. Accessories are used to a much greater degree, as well as fancy backgrounds, than in America, and all of a more expensive and elegant character.



The chemical manipulations are identical with our own, except, perhaps, in their manner of sensitizing the negative plate. The horizontal bath is much used, being preferred to the vertical form. It is claimed that it is much more easily kept in order than the vertical bath, and much cleaner work can be made with it. As shown in the figure, the solution fills part of the dish only, and when the plate is immersed, one end of the dish is lifted, and the solution made to move back and forth over the plate. When sensitized, the plate is lifted from the bath by means of a silver hook, applied at one corner, or else by means of a dipper, with which it is also let down into the bath. When not in use, of course the dish should be covered.

This much for the present. The week thus far spent was only a prelude to the route which I mapped out for myself, and I hope to make my record more interesting when I come to places where I had more time to see and to make notes of what I saw.

Mr. B. W. Kilburn, of Kilburn Brothers, Littleton, N. H., has made two trips to the summit of Mount Washington during this season, and returned with some exquisite results. We do not think we ever saw such softness with such detail and delicacy as these pictures possess, in any photographs of white objects. They are simply perfect, and considering the circumstances under which they were made, are wonderful triumphs for our art. The frost feathers are superb.

Editor's Table.

ITEMS OF NEWS .-- Many are out of situations now. Employ them who can. See advertisements in "Situations Wanted" column in Specialties-Messrs. E. L. Allen and Frank Rowell, two of the best photographers in Boston, have formed a copartnership, and have recently opened new and beautiful apartments at No. 25 Winter Street. We wish them great success .- Mr. H. L. Bingham, late of Kalamazoo, Michigan, has removed to San Antonio, Texas, where he is about to engage in business .- Such men as Mr. Alfred Hall, of Chicago, deserve great credit for the pains they take to instruct their fellowmembers. Mr. Hall's lecture on Chemistry (see Society Gossip) was a credit to him, and to the Society with which he is connected .- We have a letter from a man whose "hole sole is raped up in potography," and who wants to "learn the bisnes."-Mr. John R. Clemons asks us not to notice his paper any more. Says "it is good enough without."-Mr. L. M. Melander is about to open a new gallery at No. 88 North Clark Street, Chicago .- Mr. Lyman Shepard, late operator with Brown & Higgins, Wheeling, West Virginia, committed suicide last month .- The Emperor of Austria was presented with the photographs of Mr. Landy's babies, exhibited at Vienna, and took them away in his own carriage. He seemed to be much pleased with them .- As Mr. Simpson states in his "Notes," Mr. W. G. Starke, of Zanesville, Ohio, sent enlargements to compete for the Crawshay prize, but they arrived too late.

PICTURES RECEIVED.—We have samples of their work from Messrs. Tuttle, Belfast, Maine; Taylor, San Francisco; and Johnson & Glenton, Nashua, N. H. They all show wonderful progress in their work, and deserve great credit for trying to excel.

Mr. C. D. Mosher, 951 Wabash Avenue, Chicago, has sent us some admirable specimens of photography, of cabinet size, which were a surprise to us, for only a few years ago Mr. Mosher could not send forth such work from his place. Mr. D. H. Cross is his operator, Mr. Fred. Wingard his printer, and Mr. S. Carr his retoucher, all of whom he gives their full credit for their share of the work very generously.

MESSRS. J. W. & J. S. MOULTON, Salem, Mass., have sent us some excellent stereographs of Wash-

ington, White Mountains, Yosemite Valley, snow scenes, &c., which are examples of choice work. They publish a long list of such.

Mr. J. H. FITZGIBBON, St. Louis, Mo., has been turning his attention to stereoscopic work, and has sent us some excellent prints from his negatives. His views of the New Bridge and of the Synagogue are particularly excellent.

The Philadelphia Ledger, of December 19th, gives our fraternity a long and complimentary article under the title of "Good for the Photographers," which we shall publish entire in our next. A few such encouraging words as it gives from the press would encourage the advancement of our art amazingly. More anon.

THE American Institute awarded a silver medal to the American Photo-Relief Printing Co. (Mr. J. Carbutt, superintendent) for Woodbury prints on paper and glass.

We have received Vick's Floral Guide, first number, for 1874, which contains 200 pages; 500 engravings, and a colored plate. Published quarterly, at twenty-five cents a year. A German edition at same price. James Vick, Rochester, N. Y., is the publisher. This catalogue is a work of art.

POSTPONEMENT.—Owing to the fact that our photographic friends are so busy during the bolidays, we have concluded to postpone our anniversary celebration. Send in your applications for tickets, and you will be duly apprised of the time.

IMPORTANT DISCOVERY BY DR. VOGEL.—Our readers will notice with much interest the announcement which Dr. Vogel makes in the "German Correspondence," of his discovery that the nonactinic rays may be made actinic. We look anxiously for more details of his experiments, and congratulate him on what he has done.

OUR PREMIUMS.—Our readers will notice several new features introduced in our magazine this month. Will they not please use these to aid them in securing new subscribers, and thus make great demands upon us for premiums?

The tenth public exhibition of the French Photographic Society opens May 1st, 1874. We will send a copy of the regulations to all intending exhibitors. No time to be lost.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stockdealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23rd to secure insertion. Advertisers will please not ask us for recommendations. ** We cannot undertake to mall answers to parties who advertise. Please always add your address to the advertisement.

Wanted.—A photographic operator; must be capable of doing good work. To one that will suit a permanent situation and good salary is offered. Good recommendation will be required. Call, or address W.G. Entrekin, 4382 and 4384 Main St., Manayunk, Phila., Pa.

Important to every Photographer in the country. See advt. on another page of the Photographers' Exchange.

FOR SALE AT A BARGAIN. -\$1000 cash will buy my gallery in Athens, Ga. It is well equipped for first-class work, and enjoys the first-class patronage of the city and surrounding country. No first-class opposition. The city has a population of about 5000 inhabitants. The University of Georgia is situated there, with an average attendance of about 300 students; also, a female college and other high schools, all in a flourishing condition. It is the best opening for an enterprising man in the South. The gallery has been established eight years, and is located on the best street, and in the center of business, and opposite the University. The climate of Athens is unsurpassed, and it is considered the healthiest city in the State. My reason for selling is that my time is wholly taken up with my business in Atlanta.

I will sell for \$1000 cash; or, if the party prefers, \$600 cash, balance on time to suit, with security and ten per cent. interest. Parties meaning business will please address

> C. W. Motes, Photographer, Atlanta, Ga.

Use Mardock & Co.'s New Compound Developer.

For Sale.—First-class photograph gallery. Best location, best light in town, handsome rooms, well furnished, established three years. Prices, \$5 per dozen cards. \$3 for 4-4. Without instruments, \$400. For particulars address

PHOTOGRAPHER, A. C., Kansas City, Mo.

Wilson's Baltimore Stock Depot, 7 North Charles St. Try an order LANTERN SLIDES AT 50 CENTS.—Choice American, Foreign, and Miscellaneous Views, clear and brilliant with any light. Neatly mounted, three inches diameter, and in any quantity, at 50 cents each. Send for catalogue. Also, an improved Oil Lamp for any lantern.

WM. R. BROOKS, Phelps, N. Y.

OPINION ON THE WESTON PATENT.

For the benefit of those interested we publish the following:

BANGOR, Nov. 17th, 1873.

Hon. J. P. Bass.—Sir: The question submitted to me, as to whether the stoppage of one roll of the Excelsior Roll Press, and its use in polishing photographs, either with or without heat, would infringe the Weston reissued patent of February, 1873, for a burnisher for photographs, &c., has received my attention. Basing my opinion on the specification and claims of said reissue, which is prima facie valid, I do not hesitate to pronounce said alteration and use an infringement of each and, if heat is used, all the claims.

Stopping one roll of said press and feeding the card over it by revolving the other, polishing it in its passage, is covered by the first claim of the reissue. It produces a "burnishing machine by which a surface is given to the article to be polished, by feeding it under pressure over the surface of a stationary burnisher," and such machine is what Weston claims. Stopping the roll converts it into a "stationary burnisher"-as far as its operation on the picture is concernedits shape being a matter of no consequence, and the combination of this stopped roll with the revolving one is substantially the combination of the feed roll and stationary burnisher set forth in the second claim of the reissue. Heating the stationary roll introduces into the combination the elements which Weston's third claim is based upon.

I consider the device as simply a colorable variation of Weston's machine, performing substantially the same work in substantially the same way, and should advise the prosecution of infringing parties, having confidence in the validity of the patent, and believing that it will be sustained by the courts.

Very respectfully.

WILLIAM FRANKLIN SEAVEY, Counsellor at Law and in Patent Cases.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1873, \$4.50.

To Photographers using the Weston Burnisher.

Do not use gnm in India ink for touching out spots on eards to be burnished.

A lubricator, highly recommended by some photographers, is composed of one grain white Castile soap dissolved in four ounces of very thin plain collodion, or the mount can be coated with thin plain collodion before mounting.

The Photographers' Exchage. See advertisement on another page.

JACOBY has a clear patent on his printingframe, and it does not infringe on the Mezzotint patent. Parties reporting the same to injure the sale of his frame had better look out. Any one buying them, can use them without fear of any one.

L. G. BIGELOW offers his services as an operator, from the present time until July 1st, 1874, at a fair remuneration. He guarantees first-class negatives. Address at 56 Henry Street, Detroit, Michigan.

Use Waymouth's Vignette Papers.

FOR SALE CHEAP.—One of the best galleries, doing a splendid paying business. The only one in the town; situated in the business centre. North light, plenty of room, water, and gas. A rare chance. If you mean to buy come soon, or address

Photographer,

Middletown, Pa.

Robinson Photo. Trimmer. A new thing. \$3.50. See ad.

THE PHOTOGRAPHIC PORTFOLIO, or Universal Scrap Book, with an improved scope, and samples of leaves and mounts, to hold fifty-four cartes-de-visite, twelve imperials, twelve stereographs, and two 4-4 or whole sizes, costs but \$5.55, and if ordered from the publisher, can be returned if not satisfactory. The addition of leaves or mounts, to hold any number and size of pictures that may be desired, will be but little expense after this first outlay. Samples ordered by express will be sent C.O.D., with instructions to allow the package to be examined on the payment of a sufficient amount to cover the express both ways. The above sample, filled with choice photographs, will be sold to agents, or parties who may wish to sell or canvas for them, for \$10.50, net. Send for circulars.

> A. C. PARTRIDGE, 351 Washington St., Boston.

FANNIE EATON'S CARTES.—Fifteen for \$1.50. See October No. Philadelphia Photographer. Comic and good studies. For sale by

BENERMAN & WILSON, Philada.

Use Mardock & Co.'s New Compound Developer.

Office of Wilson, Hood & Co.,

Dealers in Photographic Requisites, Frames,

Stereoscopes, and Views,

No. 822 ARCH STREET,

PHILADELPHIA, September 20, 1873.

We have pleasure of announcing that we have in stock a small lot of Albumen Paper of the celebrated manufacture of the Albion Albumenizing Co., of London, England.

Following are colors, quality, and price:

White	Saxe,	per	ream,	\$34	00
Blue	"		4.6	34	00
Pink	4.4		6.6	34	00
White	Rives,		4.6	33	00
Blue	6.6		6.	33	00
Pink	6.4	******	"	33	00

We have had it well tried and can advise our customers to purchase.

ILLUSTRATIONS TO THE N. P. A. LECTURES. -Photographers who desire to study the lectures delivered at Buffalo by Messrs. Pearsall, Baker, and Wilson, with the illustrations, thus securing invaluable instruction in art principles, will be glad to know that these gentlemen have arranged to supply sets of their illustrations at the mere cost of production, and they may be had as follows: G. Frank E. Pearsall, 298 Fulton Street, Brooklyn, N. Y., six cabinet cards, including twenty-four illustrations, reduced size, \$1. W. J. Baker, 390 Main Street, Buffalo, N. Y., a full set of illustrations of the size of the originals, \$2. Edward L. Wilson, Philadelphia, nine cabinet cards, including illustrations named in the report, \$1.50.

A reading of the lectures will convince any one of the value of them, and the desirability of having the illustrations.

Robinson Photo. Trimmer. A new thing. \$3.50. See ad.

PHOTOGRAPHERS using the Weston Burnisher can obtain a higher finish by first coating the card with plain collodion, then applying the lubricator and polishing as usual.

Wilson's Baltimore Stock Depot, 7 North Charles St. Try an order.

Use Mardock & Co.'s Special Preparations. See advertisement.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1873, \$4.50.

Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

Use Mardock & Co.'s New Compound Developer.

PHOTOGRAPHERS of the South who wish to save time, freight, and money should buy their goods at Warner's Photographic Stockhouse, Rome, Ga.

WAYMOUTH'S VIGNETTE PAPERS.

"I am using and like them very much thus far."—A. MARSHALL, Boston.

"A sensible improvement."—GEO. S. COOK, Charleston, S. C.

STEREOSCOPIC NEGATIVES WANTED.—Parties having for sale new, unused, stereo. negatives of attractive American scenery, will oblige us by sending a list of them and the prices.

BENERMAN & WILSON, Phila.

The Ferrotyper's Guide is ready. 75 cents. See advt.

STEINHEIL!

Albany, N. Y. June 9, 1873.

WILSON, HOOD & CO.

Gents: Your favor of the 5th, enclosing receipt, duly arrived.

We send by mail one full set of our Stereo. Views, hoping you will be able to find a ready sale for them; the next dozen we think will astonish you, the size of object, depth of cut, and sharpness; those Steinheil Lenses are splendid, (pair No. 4, W. H. & Co.)

Yours truly, HURST & SON.

Use Mardock & Co.'s New Compound Developer.

THE STEREOSCOPE: its theory, history, and construction, with contributions to the subject of binocular vision and suggestions as to the use, selection, &c., of a stereoscope, illustrated, by Prof. Charles F. Himes, 50 cents. For sale by Benerman & Wilson, Philadelphia. All who are interested in the stereoscope should possess this excellent work. Now ready.

ROYAL ALBUMEN PAPER is the best. WM. H. MARDOCK & Co., importers.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition.

VOIGTLANDER & SON LENSES.

Ryder's Art Gallery, 239 Superior St., Cleveland, Ohio, Dec. 18, 1872. Benj. French & Co.

Dear Sirs:—Twenty-four years ago I bought and commenced using my first Voigtlander Lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good.

Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before.

Yours, truly,

J. F. RYDER.

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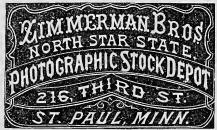
TESTIMONIALS.

San Francisco, May 18th, 1873.

WILSON, HOOD & CO.

Gents: The Ross Cabinet Lens which I received from you about one year ago, has been in constant use during that time. I could write much in its praise, and I will here say that I execute with it all sizes, from the smallest locket to 8 x 10 heads and groups. Truly, it is the best lens I have ever used during my photographic experience of twenty-eight years.

Very respectfully, SILAS SELLECK.



ELBERT ANDERSON'S BOOK AND MOSAICS, 1873, \$4.50.

SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

We cannot have letters directed to our care, unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

The German Photographer's Society, of New York, have established at Chas. Cooper & Co.'s, 150 Chatham Street, New York, a mutual labor exchange office. Employers in need of help, and employees in want of situations, will please send their names, directions, and full particulars to the place above, where each case will be promptly attended to, free of charge.

EDWARD BOETTCHER,

Cor. Secretary.

As operator or retoucher. Understands all branches. Address F. E. Loomis, Holly Spring, Wisconsin.

By a young man with eight years' experience in the best galleries. Can operate and print, but retouching is his forte. Address S. Samuels, care 344 Pearl Street, Photographer, Cleveland, Ohio.

By a lady; is a good negative retoucher, and well qualified to tint and retouch cards. L. E. Bowering, Holtsville, Suffolk County, Long Island. N. Y.

By a young man of three years' experience. Can operate, print, tone, &c. Can come well recommended. Address Henry W. Foster, Box 816, Monmouth, III.

By an operator, one who is also a good hand at retouching; six years' practice in photography. Specimens sent on application. Address J. E. St. Clair, P. O. Box 134, Jacksonville, Ill.

By an operator of ten years' experience; can act as operator or retoucher. J. E. Morris, Reading, Hamilton Co., Ohio.

By a man of many years' experience, both of in and out-door work. New York or Philadelphia prefered. Address D. C. Chittenden, care of J. B. Mitchell, 26 South Seventh Street, Phila.

By an operator of sixteen years' experience in a first-class establishment. Can retouch. Address W. H. C., Box 657, Carbondale, Pa.

As ferrotype operator in any first-class gallery in city. James A. Smith, Tiskilwa, Ill.

By a young man of steady habits, as printer, toner, retoucher, or assistant operator; has had three years' experience. Photographer, 402 N. Main Street, Bloomington, Ill.

By a young man as assistant operator or printer. Apply to S. Stein, 304 Third Street, Milwaukee, Wis.

By a first-class retoucher in a gallery. Address E. D. M., 42 North Ninth St., Phila., Pa.

As assistant operator, by a man who has had six years' experience. Wants to get in a first-class gallery, where he may have a chance to improve. Wm. H. Peters, Brownsville, Mo.

By a young lady in a photograph gallery; has same experience, and can give reference. Address H. L., Photograph Gallery, 43 N. Eighth Street.

By a competent operator; has been in business for himself. Can work in India ink, and do first-class retouching. Photographer, Box 230 Sherburne, N. Y.

By a young lady as retoucher. Can also tint and spot out. Address M. A., S. E. corner Franklin and Diamond Streets, Philadelphia.

By a young man of four years' experience. Can print, tone, and retouch negatives. Is willing to make himself generally useful. Address Photographer, Sassafrass Fork, N. C.

As retoucher, by a lady accustomed to fine work in oil and crayon. No objection to assist in printing. Address I. K. L., Ithica, N. Y.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. J. W. Black, President; J. H. Hallenbeck, Secretary, Boston.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Sccretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N. Y.—Second Monday in each month. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary, Brooklyn.

Maryland Photographic Association, Baltsmore.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N. H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Society of Philadelphia.—At No. 520 Walnut Street, third floor, first Wednesday of each month. J. C. Browne, President; E. Wallace, Jr., Secretary, 1130 Spruce Street.

Pennsylvania Photographic Association, Philadelphia.—At the galleries of the members. H. Phillips, President; R. J. Chute, Secretary, Office Philadelphia Photographer.

Photographic Association of the District of Columbia, Washington, D. C.—E. J. Pullman, President; C. M. Bell, Secretary, 459 Pennsylvania Ave., Washington. First Tuesday, monthly.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. A. Hesler, President; G. A. Douglas, Secretary, 158 State St.

Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

Photographic Association of Western Illinois.— At Galesburg, first Wednesday of October, January, April, and July. S. T. Bryan, President; J. F. Barker, Secretary, Galesburg.

Chicago Photographic Institute, Chicago.— 1st Monday; monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, Sec'y.

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The Greatest Scientific Novelty of the Age.

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For Spring and Summer, order a Landscape background, and begin to make sample pictures for the next N. P. A. Convention.

Enclose stamp for samples.

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LATEST.

Nos. 66, 67 & 68,

Were exhibited at the Buffalo Convention. Large sales.

No. 69.

A moonlight. New and a decided novelty.

DR. VOGEL'S

NEW WORK!

THE PHOTOGRAPHER'S

Pocket Reference-Book

AND

DICTIONARY:

An Alphabetically arranged collection of practically important hints on the construction of the Gallery; selection and trial of lenses and chemicals; approved formulæ for the different photographic processes; tables of weights and measures; rules for avoiding failure, etc., etc., for

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IT IS A BOOK EVERY PHOTOGRAPHER SHOULD HAVE.

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Have the pleasure of announcing the discovery of a

NEW COMPOUND DEVELOPER,

By the use of which, with ordinary Collodion, the time of exposure is reduced fully one-half, and in connection with our new Rapid Collodion only one-quarter the usual time of exposure is required. The trouble attending the taking of Children's Portraits is thus entirely obviated, an instantaneous exposure only being required when the compound is used in concentrated form.

The Negatives resulting from the use of this Developer are distinguished for beauty of half-tone, vigour, and fine printing qualities.

After-intensification is seldom, if ever, required. We are in receipt of numerous Testimonials from parties who have thoroughly tried it, and annex some.

"I have great pleasure in testifying to the superior merits of your new Compound Developer. It not only saves half the usual time of exposure, but gives Negatives finer in detail, and printing qualities, than I have been able to obtain with the usual Iron Developer. It also keeps well, as I am now using a solution made two weeks ago, and I find it as efficient as when freshly made. I cannot recommend it too highly."—WM. KLAUSER, 466 Sixth Avenue, N. Y.

"Your new Developer, in connection with your Rapid Collodion, works in less than half the usual time required with ordinary development. It is a great improvement."—0. С. Smith, with H. L. Cowell, New Haven, Conn.

PRICE PER POUND 30 CENTS. For Sale by all Dealers and Manufacturers.

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W. H. MARDOCK & CO.'S Extra Rapid Collodion, in connection with their Compound Developer, saves seventy per cent. in time of exposure. PRICE PER POUND \$1.25.

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Or get him to procure them for you from the manufacturer,

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All popular brands of ALBUMENIZED PAPER, both heavy and light, and guaranteed to produce uniformly the most perfect results.

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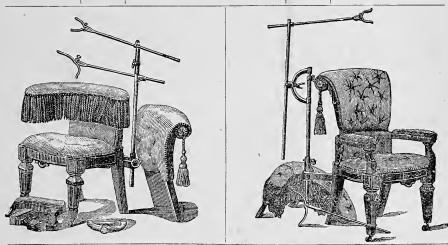
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Enabling the photographer to successfully secure every variety of pose with facility and reliability. It is admirably adapted to the varying necessities of female portraiture, and is equally suited for children, for vignettes, or for full lengths. The BOWDISH CHAIR is substantial in construction, elegant in design, and rich in upholstery and finish. Those who have purchased them, speak in the highest terms, as will be seen by the following



"About ten days ago I received the new chair you promised to send me when I saw you last, and would have written and acknowledged your kind favor long ago if I had correctly known your address. Accept my best thanks for this really beautiful chair, which now, after ten days' trial, has proved to be a decided success in every way. It has become the real favorite for posing in my studio. Besides this, in external appearance the new chair appears so much superior in finish, and is at the same time highly ornamental, and the head rest is so much easier handled than with any chair I have ever seen before. In short, it gives the sitter the greatest possible comfort and steadiness. I think the chair I have justly deserves the name of 'Perfect Posing Chair.'"—H. Rocher, Chicago, Ill., January 10, 1873.

"Since receiving your posing chair, nearly a year since, I have had it in constant use, and am satisfied that it is the best posing chair in the market. It is easily worked, and is so well made that one will last a life time, and then be a valuable heirloom."—L. G. BIGELOW.

"The Bowdish Chair came in good order and gives the best of satisfaction. Should you wish a

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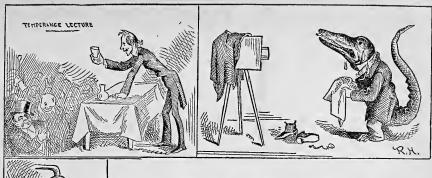
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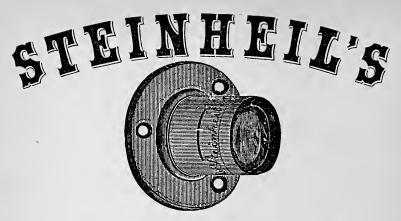
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No. 1.	1-4 size.	3½ inch focus.	\$25 00
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on its cost. Experience proves this, FOR it is entirely different from anything

in this line ever before offered to the Photographic fraternity. It is simple, cheap, and reliable; based upon common sense, the wants of the business, and well-known scientific principles, calculated to save ALL VALUE from photographer's washings and waste solutions, with little attention or expense, which it really and

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and cannot fail to commend itself to your earnest attention and careful consideration.

Messrs. Morgan & Fuller, of Norwich, Conn., the proprietors of this long needed and useful invention, will manufacture and furnish it to the fraternity at prices which bring it within the reach of every one.

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CATALOGUE.

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B The Skylight and the Dark-Room.

By Elbert Anderson, operator at Kurtz's studio, New York. This is the most beautiful and elaborate work on the art ever published. It contains nearly 250 pages—large, square—twelve photographs made by the author to illustrate the lessons of the work, and almost two hundred fine wood-cuts. See advertisements. Price, in cloth, gilt, postpaid, \$4.00.

C Photographic Mosaics.

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D The Ferrotyper's Guide.

A new work on the Ferrotype. Price, 75 cents.

E Bigelow's Album of Lighting and Posing.

This is not exactly a book, but a collection of 24 large Victoria size photographic studies in lighting and posing, made especially to teach how to light and pose ordinary and extra-ordinary subjects in all the plain, fancy, "Rembrandt" and "Shadow" styles. It is accompanied by an explanatory key of instructions, together with a diagram for each picture, showing how the sitter and the camera were placed in the skylight, their relation to the background, and what blinds were opened and closed at the time of the sitting. It almost supplies a rule by which you can quickly tell how to manage every subject that comes to you. The studies are mounted on folding leaves, so that twelve can be examined at once. Price, in cloth, gilt, \$6, postpaid.

${f F}$ Wilson's Landscape Studies.

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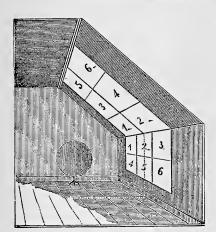
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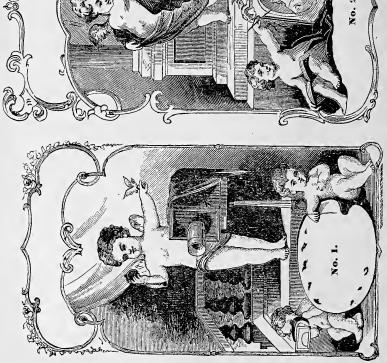
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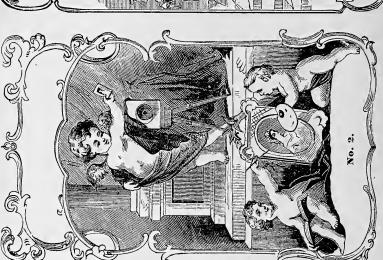
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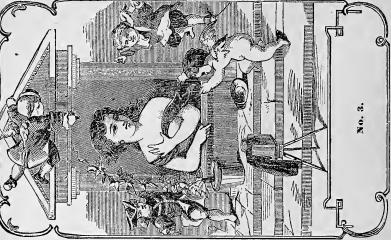
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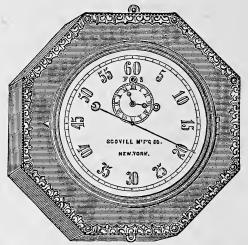
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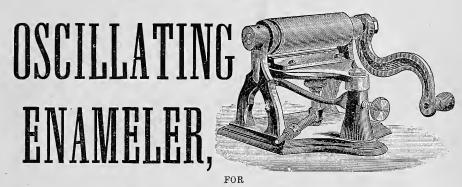
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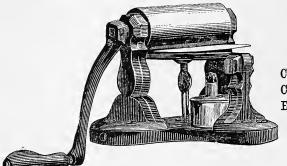
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OPINION ON THE WESTON PATENT.

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BANGOR, ME., Nov. 17th, 1873.

Hon. J. P. Bass.—Sir:—The question submitted to me, as to whether the stoppage of one roll of the Excelsior Roll Press, and its use in polishing photographs, either with or without heat, would infringe the Weston reissued patent of February, 1873, for a burnisher for photographs, &c., has received my attention. Basing my opinion on the specification and claims of said reissue, which is prima fure valid, I do not hesitate to pronounce said alteration and use an infringement of each, and, if heat is used, all the claims.

Stopping one roll of said press and feeding the card over it by revolving the other, polishing it in its passage, is covered by the first claim of the reissue. It produces a "burnishing machine by which a surface is given to the article to be polished, by feeding it under pressure over the surface of a stationary burnisher," and such machine is what Weston claims. Stopping the roll converts it into a "stationary burnisher"—as far as its operation on the picture is concerned—its shape being a matter of no consequence, and the combination of this stopped-roll with the revolving one is substantially the combination of the feed-roll and stationary hurnisher set forth in the second claim of the reissue. Heating the stationary roll introduces into the combination the elements which Weston's third claim is based upon. I consider the device as simply a colorable variation of Weston's machine, performing substantially the same work in substantially the same way, and should advise the prosecution of infringing parties, having confidence in the validity of the patent, and believing that it will be sustained by the courts.

Very respectfully,

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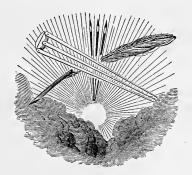
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ADVERTISEMENTS.

ALBION ALBUMENIZING CO.'S PAPER. ANDERSON'S PHOTO-COMIC "ALLMYKNACK." Anderson, J. A. Photographic Apparatus. ANTHONY & Co., E. & H. T. The Bowdish Chair. AYRES' CHART OF PHOTOGRAPHIC DRAPERY. Benerman & Wilson. Lantern Slides. BIGELOW'S ALBUM OF LIGHTING AND POSING, BIERSTADT, CHARLES. Photo. Views. BULLOCK & CRENSHAW. Photographic Chemicals. CHAMELEON BAROMETER. CLEMONS, JNO. R. Albumen Paper. Varnish. COLLINS, SON & Co., A. M. Photograph Cards. COOPER & Co., CHAS. Portrait Lenses. Dubernet, L. Passepartouts and Picture Frames. ENGLISH ALBUMEN PAPER. ENTREKIN, W. G. Oscillating Enameler. FELT, L. W. The Photographer's Exchange. FRENCH, B. & Co. Voigtlander Lenses, &c. GIHON, JOHN L. Opaque and Cut-Outs. HANCE'S PHOTO, SPECIALTIES. HOW TO PAINT PHOTOGRAPHS. JACOBY, W. H. Printing Frame. KARSTENS & BRAUN. Albumen Paper. KILBURN BROS. Stereoscopic Views. LEA'S MANUAL OF PHOTOGRAPHY. LEWIS, R. A. Collodion. LIESEGANG, E. Albumen Paper, LINN'S LANDSCAPE PHOTOGRAPHY. MARCY, L. J. Sciopticon. MARION & Co. Specialties. MAGEE, JAMES F. & Co. Photographic Chemicals. McAllister, W. Mitchell. Manufacturing Optician. MOORE, ALBERT. Solar Printing. Mosaics, 1873 and 1874. NATIONAL PHOTOGRAPHERS' CHEMICAL CO. NEWELL & SON, R. Acid-Proof Photo. Ware.

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And are warranted for the special work for which they are advertised.

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Special votes of thanks were given for them by the Photographic Society of Philadelphia; Photographic Association of West. Illinois; Chicago Photographic Association; Indiana, District of Columbia, and Maryland Photographic Associations; Photographic Section of the American Institute; German Photographers' Society, New York; Boston and Brooklyn Photographic Art Associations, whereat they attracted great attention and admiration.

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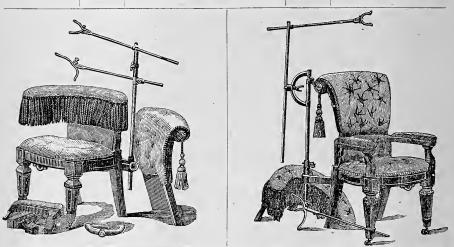
side their collection don't deserve them.".—J. PITCHER SPOONER.

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Enabling the photographer to successfully secure every variety of pose with facility and reliability. It is admirably adapted to the varying necessities of female portraiture, and is equally suited for children, for vignettes, or for full lengths. The BOWDISH CHAIR is substantial in construction, elegant in design, and rich in upholstery and finish. Those who have purchased them, speak in the highest terms, as will be seen by the following



"About ten days ago I received the new chair you promised to send me when I saw you last, and would have written and acknowledged your kind favor long ago if I had correctly known your address. Accept my best thanks for this really beautiful chair, which now, after ten days' trial, has proved to be a decided success in every way. It has become the real favorite for posing in my studio. Besides this, in external appearance the new chair appears so much superior in finish, and is at the same time highly ornamental, and the head rest is so much easier handled than with any chair I have ever seen before. In short, it gives the sitter the greatest possible comfort and steadiness. I think the chair I have justly deserves the name of 'Perfect Posing Chair.'"—H. ROCHER, Chicago, Ill., January 10, 1873.

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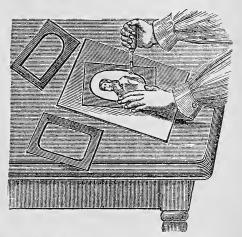
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TESTIMONIALS.

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"I like the Trimmer very much. I think it a very useful article. It works well and does all it is recommended to do."—F. G. Weller, Littleton, N. H.
"The Robinson Trimmers have come to hand, and I like them very much; they are just what I wanted

"The Robinson Trimmers have come to hand, and I like them very much; they are just what I wanted and found it difficult to get."—J. W. BLACK, Boston.
"I am using the Robinson Trimmer and consider it the best article for trimming photographs I ever saw."—W. H. RHOADS, Philadelphia.
"It does its work magnificently. The only wonder is, that it was not invented years ago. It is indispensable."—GARRETT BROS., Philadelphia.
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the most usefully instruments that we have in our gallery. In the few months that we have owned it we cut some 10,000 photographs with it, which were cut in one-fourth the time, and cut better than any other instrument could do it."—SCHEIBER & SONS, Phila.

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One No. 13 Double Swing-back Chicago Box,	28	00
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One 8-10 Swing-front Portrait Box, "	32	00
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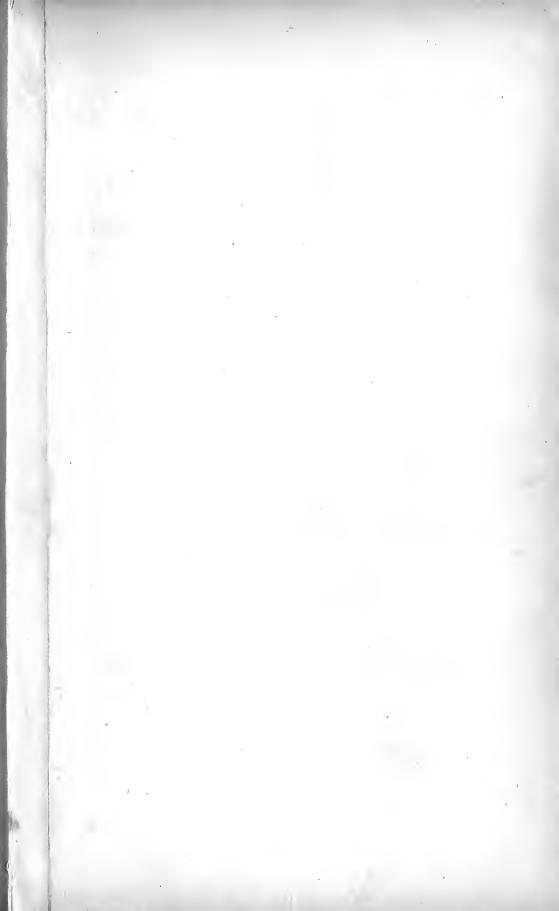
Sherman Card Frames. We have of these three different sizes and styles for the Card, Victoria, and Cabinet Photographs.

White Hollywood Frames. We have these in three different styles of each size for the Card, Victoria, and Cabinet Photographs.

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A. Marshall,

Boston.

Philadelphia Photographer.

Vol. XI.

FEBRUARY, 1874.

No. 122.

Entered according to Act of Congress, in the year 1874,
BY BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

A LAST CHANCE.

A SPLENDID OFFER.

Our readers are aware, most of them, that during 1871 and 1872 we published a kindred magazine to the Philadelphia Photographer called the Photographic World. It was devoted principally to the publication of foreign matters pertaining to photography, and contains many very valuable and excellent papers that will never lose their value. Indeed, we do not think any two volumes of the Philadelphia Photographer are worth more than the two volumes of the World. And, besides their readable contents, they contain twenty-four most beautiful specimens of photography, by various processes and covering almost every style. These alone are worth all we ever asked for the whole work.

But, as our readers are not aware—at least not so painfully as we are—the Photographic World gave us more work than we could do, and financially it was not a success, for it was not encouraged sufficiently. We therefore, discontinued it, with several thousand copies left on our shelves. Since then we have tried to sell them at a low price, but we are free to say that they are not largely purchased. We now want that shelf room, and were about to send the Worlds to our paper-maker, to be ground over, when the thought occurred to us that we could do

more good with them by making our readers the following splendid offer:

To any subscribers to the PHILADELPHIA PHOTOGRAPHER, who will signify their will-ingness to receive them, we will send six, or at our option, more copies of the PHOTOGRAPHIC WORLD, free of charge, until March 18th; after that, all copies left will be otherwise disposed of.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

II.

YES, but I have not left Brussels yet, and I must tell you a little more about it. As I said before, the Bulletin Belge de la Photographie is published here, and its editor, Mons. Walker, is largely engaged in the manufacture of chemicals, glassware, &c., and does not confine himself to the requirements of photographers alone. The fact is, there is so much else to see in Brussels that I gave photography the go-by for a day, and yielded to the temptation of other things. Forgive me.

One thing which first attracts and astonishes an American who has a fondness for works of art, is the immense wealth of such objects in the Continental churches and cathedrals. Those buildings, therefore, are much frequented by tourists, and one can

there study works of art and human nature at the same time.

In Brussels there is the famous old Cathedral of St. Michael and Gudule. Its magnificent stained windows thrill one with delight, and send beauty in all directions through the dark interior, by means of sunlight messengers. The nave is lined with noble statues, the chapels and confessionals are adorned with beautiful sculpture and paintings and carvings; but what attracted me the most was the pulpit, which is the most wondrous example of wood-carving of its kind that there is in existence, perhaps. It represents the expulsion of Adam and Eve from Paradise, with many accompanying allegorical figures of greater than life size, all beautifully and wonderfully grouped and carved. It is a splendid subject for a photograph, and the Brussels photographers have done it full justice, although I cannot say much of what else they have done, because it is most difficult to get good views of objects in that beautiful city there. I wandered and wondered a long time in this old cathedral, and then set about other things.

Did you ever feel the pleasure of that perfect freedom which one has when entirely away from the cares and trials of the daily routine of business? I felt it in Brussels, and I gave way to it. I wandered now in the park, listening to the chirp of the birds and the music of the beautiful fountains; then, taking in the beauties of the abundance of sculpture, or watching the busy throng of people of all classes who made a "short cut" across, thinking how many pictures I could capture, if I only had my apparatus here. Then I strayed off among the boulevards-once the site of the fortifications of the city, but now beautiful wide streets lined with trees-and sat me down at a table in front of some beer house, whose wide pavement was covered with tables and chairs, and people drinking beer, as they discussed the past, the present, and the future, where I could watch the strange panorama that never ceased to move before me. Oh, Brussels! how fascinating thou art, and what a splendid chance here for Scovill Manufacturing Company to open a branch store for the sale of brass buttons, for soldiers, police, newsboys, pages, porters, carriers, cooks, bootblacks, and—every other man are lined with brass buttons, all as numerous as the trees on the boulevards. And yet they seem to be a *modest* people, with all their brass.

But I must not waste your time with these details. They are not of photography, yet there are pictures here for the camera in abundance.

When tired-nay, not tired, for I never tire of watching human beings-but when I was warned that my time was slipping by, I turned my steps to the old Museum, where I made my first bow to a splendid collection of the paintings of the old masters. Here I was, certain, right in the midst of the works of Guido, Correggio, Cuyp, Rubens, Van Dyck, Vanderweyde, and others. I at once felt the advantages of such little knowledge as I have of art principles, and I found myself involuntary applying that knowledge then. Pyramids and diagonals and lovely curves would spring out at me-like spectres ?no! but like real, living objects. now a great broad expanse of light would startle and thrill me, or a sublime rich shadow make me stand and search for the wondrous detail I was sure to find. was in æsthetic glory, and I wandered to and fro among the galleries with a feeling of enthusiasm and ownership which I shall never forget. There was every variety of subject here, and artists of all grades and sexes making copies. Many times I halted before a life-size painting of Adam. was exquisitely beautiful in figure, and the coloring of the flesh seemed flesh itself. Here, thought I, is where the painter has the advantage of us. He can, with color and brush, imitate nature more closely than we, and he can create expression, which we cannot do. Yet are we not progressing, and have we not a new power in the pencil by which the modelling of the negative may be almost anything we choose to make it? As to expression, that depends more upon our own personal humor at the time we make the negative, than we generally admit. But we will discuss this subject again. The attendant upon the Museum has warned me, by the rattling of a huge bunch of huge keys, which he carries, that the hour for

closing has arrived, and I reluctantly leave. Into the street again, I find myself again giving way to the feeling of freedom and I Right at hand find plenty to occupy me is the statue of Duke Alva, who, in A.D. 1500, made it his boast that in six years he "took off the heads of 18,000 persons," so that the photographers of the present day are not of the first engaged in such deplorable business, although we have an Alva (Pearsall) among us. The palaces, the Botanical Garden, the fountains, and the public buildings here are all heautiful; and not only this, they are so located as to have the most beautiful appearance,-their surroundings are beautiful. I took in all I could of them, resting not until night overtook me.

Brussels at night is quite as beautiful as at daytime. The Galerie St. Hubert, which is a great arcade, 692 feet long, 64 feet high, and 26 feet wide, seems to have sprung into existence like a gas jet itself. It is now most brilliantly illuminated, as well as its shops, and the latter make show of their most glittering wares in their win-Streams of people of all classes pour through this popular avenue, and posting myself in the shadow of a great column I stood and watched the Babel-like scene. Amid the music and the merriment of the gay people, who seemed to forget care entirely in the beer and the ices which they were absorbing at the numerous establishments devoted to the traffic of such dainties, I stood alone, in a foreign land. Numerous persons approached me, whom I suppose could as easily see I was a foreigner as I could see that they were foreigners to me, offering their services for all sorts of things, both delicate and indelicate. But I preferred to have no "guide." escaped from my cage, and I wished to fly along alone. To the beautiful park I went again, where another world seemed to have sprung up. The great music-stand was filled with fine performers, and the space in front was transformed into a garden devoted to beer and ices, with thousands of people promenading to and fro, giving way to the bewitching influence of all things around them. Each person seemed to have a companion. I had none; and not daring to be lonely, I made a stroll to my hotel, and was soon asleep.

Do you not see how difficult it is for me to make my "views" entirely photographic? Every way I turned I found splendid material for the camera—magnificent buildings, splendid streets, and genre pictures on every corner and each rod of of the way.

From Brussels, one day, I made an excursion to Charleroi, where are located some of the largest glass manufactories of the world, to say nothing of the coal-mines in the neighborhood. You are not aware, perhaps, that nearly all of the fine "French" picture and negative glass, which is used in photography, is made in Belgium. Nearly all the "French" plate-glass for our show-cases and front windows is also manufactured in Belgium. It is called "French," I suppose, because many of the men who make it speak French—not all, however, for I learned, by dear experience, that many of them jabber the most absurd Flemish.

Well, it was to see photographic glass made that I went to Charleroi. It is a city upon a hill, or a great many hills, and looks, from a distance, like a huge charcoal mound, for the earth and the factories and the people are nearly all one color, and the smoke which colors all seems to ooze from everything and everybody. Nothing seems clear there but the glass. When I arrived at the station a man seized my luggage, and wished to know if I wished a "carrazgh!" Upon being informed that I did, I was led to a small inn where a jolly fat woman was the proprietress. I bargained with her for the use of a horse with a long reach, and for Hubert, her humpbacked driver. While Hubert changed his clothes and put on his best blouse (which barely reached over his hump), and clean wooden shoes, and I made some notes, the "rig" was made ready.

One learns to be patient in this country. It takes a long time to get everything or anything done; but in a reasonable time Hubert and the horse and I were ready, and we started.

Had Dr. Vogel seen us as we climbed the hills of Charleroi, at the rate of about 8 15, he would have exclaimed, as is his habit, "Das ist ein schöne genre bild!" Hubert

jerked his horse, but the latter seemed to have an understanding with Hubert, and made no increase in his speed. However, after travelling through the narrow, dirty streets,



Hubert jerked his horse, but-

and the curious market-place, where the women were squatted on the ground with white handkerchiefs about their heads, and white muslin shawls pinned tightly to their shrivelled bodies, with their merchandise arranged around them, and through a great procession of the peasantry who were coming to market, the women bareheaded, but carrying umbrellas as large as balloons, and passing a funeral, which our malicious horse tried to break up by seizing the hat of the head pallbearer, through dozens of dogcarts, and simooms of dust, we arrived at the office of one of the largest glass-making firms, to whom I had a letter of introduction. I was received with such gentlemanly courtesy, that notwithstanding the dirt and dust, I wanted to stay longer than my time would allow. I was taken through the manufactory and shown the whole process, from the mixing of the ingredients to the packing of the glass in the very familiar boxes, for market. You all understand how glass is made. Here, in one department, are huge furnaces, almost without number, and a scene is presented which is almost appalling. What with the roaring of the furnaces, the belching of the flames from their mouths, the running to and fro of half-naked men and boys, the contortions of the glass-blowers, and the clashing of broken glass, one might be excused from thinking him-elf in that portion of the Inferno which Dante devoted to defunct glassblowers who spoiled too much good glass while here in the flesh and perspiration.

After the "metal" is "ready" the glass-

blower, with his hollow iron tube, dips sufficient from the mass to make a cylinder. Standing upon a high platform in front of the furnace, he first blows through his tube, and then swings the bagshaped mass thus formed to and fro in the air until it grows larger and larger, heating it between times. Eventually he produces a cylinder from five to six feet long, say fifteen to eighteen inches in diameter, and when standing on end looking like a huge "glass shade" such as is used for flowers, wax fruit, &c.

These cylinders are taken now to the flatting furnace. They are lifted into the furnace, and after attaining a certain heat, the



Eventually he produces a cylinder.

workman touches them with an instrument, at one end, which causes a crack to run along the whole length. Now the sides begin to separate, and as the cylinder becomes



Now the sides begin to separate.

hotter, so it becomes less a cylinder, until it rests upon its warm bed almost flat. The workman now takes a heavy iron tool, simi-

lar to a scraper or hoe, and works it over the glass until it is as flat as he can make it. The sheet is then dexterously lifted into a cooling furnace, where it gradually becomes cold, and from which it is carried to another room, cut into proper size, and boxed for market-the small sizes for the photographer, and the larger ones for the picture dealer and the glazier. Yet be assured the photographer gets the best attention, for his glass is all selected, and I charged the workmen here to be very conscientious about it. I was laughed at, but that was not the first time I had been laughed at for my interest in behalf of the photographic fraternity.

From Charleroi I went back to Brussels, glad to leave Hubert and his obstinate horse.

From Brussels I went to Cologne "between two days," for I could have a berth in an "American sleeping-car," or " wagenlite," as they call it here, or "schlaf-wagen" in Germany. It was the first one I had seen in Europe, and the conductor was a social young Swiss who had lived in America. The sleeping-car here is a great curiosity, and I saw many passengers going the same way, come forward, look at it with apparent dread, and shaking their heads, go back to their upright seats, and snore it out there in preference. I went to Cologne to see the great Cathedral, and I saw it, and trembled at it. With its one side rotted and worn with age, and the other comparatively new, with the scaffolding still up, and the great piles of wrought and unwrought stone about it, awaiting their turn to do good service in increasing the size of the immense structure, it looks like a mountain with its attendant débris, so overpoweringly huge is it. Its interior strikes one with awe. Its stained windows, with their hundreds of life-size figures and portraits, have all the delicacy and softness of oil paintings, and excel them in color and brilliancy. Each one is an historical study and an æsthetic delight. Such work is not made now. The art has been lost. Here, too, are the seven famous chapels, adorned with all that wealth and religious ardor could supply to make them impressive and beautiful. Still more wonderful are the ninety-six carved seats of the choir, the panels in the backs of which are each a work of art, and represent a scene in Scripture history. Gorgeous tapestry hangs down in luxuriant folds within the nave, which baffles one's power to comprehend its beauty, while the tall columns stand solemnly reaching out their arms to each other, forming arches of exquisite proportions and symmetry. What plenteous food here for the camera. Yet it is almost inaccessible on account of the dim light of the interior. Truly grand is the Cathedral at Cologne. It is a long way from being finished yet. After spending all the time I could in the interior, I walked around it, and, more than ever became impressed with its immensity. And it was at Cologne that I first caught sight of the beautiful Rhine, across which, at this place, a fine tubular bridge is erected. I went also to the Church of St. Ursula, and saw the bones of that departed faithful one, with those of the eleven thousand virgins, who met their death with her, besides many other curious objects, such as finely-dressed skeletons, &c., of which there was no lack Then I took a stroll among the fortifications of this city, for Cologne is the Micawber of the Rhine-it is always "waiting for something to turn up," and is always ready with "its armor girded on." Many strange street scenes meet the eye here. Women's rights are fully respected. I saw several women sweeping and sprinkling the streets, driving oxen, drawing milk carts, and doing other manful service. The streets need the thorough cleansing power of women, be assured. A man could not do them justice. Nature did a good thing when she established her "only genuine" Cologne-water distillery here. It is also needed, and no doubt the birth of the "only original" Jules Marina Farina was a godsend to this filthy city.

From Cologne, by rail, to Bonn. Here I visited the great University of course, and its wonderful museum, and also made a tour of the beautiful old intellectual city so famed in history, and whose history is so dear to many. But I came here to realize the dream of my youth, i.e., to take a sail upon the Rhine. At the appointed hour I embarked on the fairy-like steamer Lorely,

and soon I found myself really sailing upon the bosom of that classic river. The passengers were numerous, and in their holiday attire, but all unknown to me; so, undisturbed, on a shady bench near the stern, I threw myself down, and gave way to the enchanting scene about me. We halted often, now at some little village, or in midriver, where small row-boats added to or took from our load, and I realized to the full my dream of beautiful villas, crags, and castles, and terraces of grape vines, and the dreamy atmosphere. Longfellow's Hyperion came back to memory, and as I looked over into the water something seemed to say, as I dreamed,

"Take care! she is fooling thee."

I was awakened from my reverie by "a maiden fair," who had grapes to sell. I purchased two huge bunches of two varieties, as a climb up the Drachenfels was before me, and I would need refreshing. Just then a turn of the little craft brought the "Seven Mountains" in full view on the left, and overtopping all

"The castled crag of Drachenfels
Frowns on the wide and winding Rhine."

Soon we landed at Königswater, and I prepared to ascend the mountain. The day was hot, and stooping constantly to gather wild flowers made it hotter. First through the narrow streets of the little village, then along a winding pathway through a terraced vineyard, up, up, up, the great ruins now in sight and now hid by the rocks, "so near and yet so far." I thought I would make a short cut by crossing some fields. Ah! me. I became an innocent trespasser. Suddenly I came upon a suspicious-looking house, whose inmates seemed to be gone on some pleasant excursion. I was not left in doubt long as to the character of that house and its inmates, for the latter turned out upon me suddenly, and turned out to be an angry old man, an angry dog, and a hungrylooking pitchfork. The old man shouted, the dog barked, and the pitchfork danced frantically up and down on the stone step. I thought-I thought-well, under these circumstances, if Dr. Vogel was here, he would say, "A fine genre picture, Herr Wilson." The whole excitement seemed to be about my grapes. The man, the dog, and the pitchfork all argued that I had stolen them from their vineyard. I waved a flag of truce, and on comparing grapes found the old



An angry old man, an angry dog, and a hungry-looking pitchfork.

man had none of that style in his vineyard. So, much displeased, I proceeded with the climb. It was pleasant, as all mountainclimbing is, and reaching the grand old ruins I had a glorious view of the Rhine, up and down. It is grandly beautiful; it is bewitching as far as the eye can see, from one way to the other, and it is all I dreamed it to be, old castles, ruins, and all, but our Hudson is the most beautiful. I may not tell you more now. I descended, and crossed the river in a row-boat with an old goodnatured German, who offered to sell me some of the old castles for our Hudson, upon my telling him that we only needed them and legends to make the Hudson classic. I told him I only carried a satchel, and couldn't take his offer, but I would like to have a legend, for what is a visit to the Rhine without hearing a legend? So he gave me one, and it is too good to withhold, so hear ye the legend of the old boatman of Godesberg:

"The old wheelwright of Godesberg had a son, whose ambition seemed to arise beyond spokes and axles, but the old man knew nothing else, and was in great trouble about it. One night the lad strolled down the riverside, as was his wont, to drive home the cows. Arriving at the pasture-field, no cows could be found. The lad wandered through the vineyards and up the hillside even to the top, in search of the stray kine, but without success. Then down through the woods he came, calling loudly to his favorite heifer to 'come and go home.' At last, in his despair, fearing that if he returned home without them his father would

accuse him of having sat down by the wayside to pore over his books, as indeed he often did, and then thrash him, he knelt down by a big tree and began to pray. In his nervousness, while he prayed he scraped the earth, and when opening his eyes he discovered his knees piled up with large, green, luscious crystals! He forgot all about his kine, and, gathering his hands full of the crystals, ran with them to a confidential old friend, who was a blacksmith and also a chemist, and who applied leeches, and who was, likewise, a photographer of the ancient kind. The old man declared the crystals to be protosulphate of iron, and very valuable for developing photographic plates. The young man at once 'took out a patent,' began to levy tribute upon the fraternity at large-but not then very large-and was in danger of getting rich; but, not content, he applied 'the doctrine of equivalents,' claimed 'the use of' pyro and other equivalents, and, in fact, every method of development; whereupon he stumbled and fell, and from that day, scratch as he would, no more crystals would come. He went mad and refused to cease digging, until one day he fell into the hole he had dug and died, and covered himself up."

This is a fresh legend, and this is its preliminary exposure.

My next halt on the Rhine was at Dus-



Oblique mirrors fastened outside.

seldorf. Beautiful, quiet, restful Dusseldorf! whose people sit at their windows and see all that goes on in the street by means of oblique mirrors fastened outside, and whose mahlers (painters) and mustard have world-wide reputation. Moreover, here resides a brother of the optician, Mr. Dallmeyer, of whom

I bought a handkerchief—for know that I buy a handkerchief in every city as a remembrancer. Here also resides my good friend Dr. Liesegang, the talented editor of the *Photographisches Archiv*, of whom and of

whose fine establishment, and of the sights we had together, I must tell you in my next.

Waymouth's Vignetting Papers.

"The vignetting papers are a success. Work splendidly.—J. W. & J. S. Moulton, Salem, Mass."

The reception of such remarks as the above, concerning Waymouth's vignetting papers, induces us once more to call the attention of our readers to that great photographic convenience. Moreover, in order that all may have an opportunity to test their merits, we present each of our readers with a vignetting paper of one of the medium sizes, and we would consider it a favor to have them used.

There is nothing so disagreeable as a badly vignetted picture, and there is nothing more chaste and beautiful than one properly done. Again, there is no method so simple, so easy, and so certain as by means of Mr. Waymouth's invention. Simply "tack" them to the outer surface of the negative by the corners, carefully adjusting them to the figure by holding them (negative and paper) up to the light. Then print as usual. If an exceedingly delicate effect is desired, fasten the vignette paper to the printing-frame a little above the negative.

It would seem that they would come into very general use. They are very cheaply sold, as will be seen by the advertisement, so cheaply as to be used on every negative, though one paper may be used over and over again on different negatives. We have at least called your attention to them, and twice given you "a sample to try." Should you then continue to make badly vignetted pictures?

Messrs. Long & Smith, Quincy, Ills, say: "We find many are troubled with porcelain collodion from its not keeping, while ours keeps splendidly any length of time. We keep it tightly corked, and the bottle inclosed in a tin case, and that standing on the floor in a cool part of our store. From this fact we infer that it should be kept in a cool, even temperature, and, of course, entirely dark. The above fact may be of value to somebody."

THINGS NEW AND OLD.

BY R. J. CHUTE.

VENTILATING THE DARK-ROOM.

THERE may be differences of opinion as to which part of the work is most important in the practice of photography, but when it comes to the question of health there can be but one answer in reference to the sanitary influence of the dark-room, in most photographic galleries. In any other department of the business a man will hold out as long, and have his health affected as little by photography, as by any other branch of business he may follow, but there are few who can confine themselves exclusively to dark-room work and not break down sooner or later. The poor operator, who has been for months buried, as it were, in that chemical den, till almost crazed with headaches, and emaciated from loss of sleep and appetite, consults a physician, to see if he can ascertain what the trouble is, or whether it is his business that affects him. The doctor looks wisely at him, and inquires what chemicals he uses in his business. He replies that he is "working mostly with collodion made of ether, alcohol, and gun-cotton, and excited with iodides and bromides, and with developer made of protosulphate of iron dissolved in water with a little acetic acid." The disciple of Galen strokes his beard and says he "don't think those would have any injurious effect." Perhaps not, if a person is not confined very closely, or is passing in and out so as to get a change of air, but when a man comes to be tied to his post, as many are in our large galleries, from the time he comes in the morning, till he goes at night, and all this time drinking in the fumes from the collodion till his clothes and even his breath seem saturated with it, it must have an injurious effect.

As we all know, the vapor from ether is heavier than the atmosphere, and is therefore not so easily carried off by the ordinary means of ventilation. It falls and combines with the atmospheric gases in the lower part of the room, so that the operator is continually moving in and breathing a combination of elements not very well calculated to promote a healthy condition in an organism so delicate as the human lungs.

Now, the important consideration in reference to this matter is to devise some means of ventilation that shall carry off the fumes that fall as well as those that rise. I have long had in mind a plan which I intended to try whenever I should have cccasion to fit up a dark-room, but as there seems no immediate prospect of my putting it into operation, I will make the suggestions, in hopes that it may prove of benefit to somebody else.

I should construct a ventilator, if convenient, on the side of the room and near the place where the plates are to be coated with collodion, but I would make this a secondary consideration if I could run it up against a chimney-flue or stove-funnel, as the important point would be to warm the ventilator and thus secure an upward current; or else let the outside arrangement be such as to secure the desired upward movement. If not put in when the room is built let it be put up against the wall. It need not project more than two and a half or three inches from the wall, but let it be eighteen inches or two feet wide, making an opening something the shape of the inside of a large bath-holder, running up the wall. It should come down to within about three feet of the floor and be open at the bottom. With a current of air drawing into this the collodion vapor, as it falls from the plate, would be immediately carried away. In order to supply the room with fresh air, I should have a perforated wooden or tin pipe run around near the top of the room and connect either with another room where it would get a good supply, or else run it outside. This could be regulated by a damper, so as to admit as much or as little fresh air as desirable. A small ventilator, in or near the top of the room, to carry off the hot air in summer, would complete the arrangement, and I believe would give a well-ventilated, healthy dark-room.

The principle of the arrangement is to ventilate from the bottom of the room, and while carrying off the chemical vapors that accumulate, avoid dust that might be carried up where the ventilator is exclusively at the top. If it be not practicable to carry the ventilator up near a chimney or funnel—and this would only be of advantage in

cold weather—I would suggest that it be carried out of the highest part of the room, so that it might be warmed as much as possible by the heat that rises in the apartment. In order to secure an upward current of air, or prevent it from blowing down, as it will do sometimes, a damper or valve, something on the principle of a valve in a pump, might be placed in the upper part of the ventilator, which should be either square or round, so hung that the slightest current upward would open it, while a downward movement would close it.

I will give my ideas more in detail, with illustrations, in the next number of the *Philadelphia Photographer*.

(To be continued.)

HINTS FROM THE RECORD OF AN ARTIST AND PHOTOGRAPHER.

BY JOHN L. GIHON.

The September number of the Photographer for 1873 deserves more than a passing notice from every one who is in the habit of publicly expressing his views. To the craft it is possibly as important a volume as has ever been issued, and much that it contains should be most carefully read, remembered, and practiced. I had purposed making a somewhat lengthy criticism of its pages, but upon a second reading I find that I should have made some blunders—condemned things worthy of praise and extolled views of doubtful merit.

Controversies are always disagreeable affairs to enter into, and a full expression of one's thoughts is very apt to entail them. Metaphorically speaking, there is plenty of grain, and each one can separate the wheat from the tares according to his own liking. At the same time I cannot refrain from assuming the position that some of our members are too enthusiastic, too sanguine as to the future of photography. The hope that our pictures will ever be classed with the glorious efforts of the old or even the modern masters of art, will never be real-There has been a deal of comment as to the level that our vocation should hold in the established scale of men's professions. The effort to place it upon the same base with painting and sculpture must necessa-

rily end in failure, and it is visionary to suppose that any of our pictures, as at present made, or as they promise to be produced, will be hung with the works of legitimate artists. Photography must hold a neutral ground. It must have a platform of its own. It cannot claim perfect equality with the fine arts, for the adept there has the opportunity of showing what imagination can conceive and skill execute. With ourselves there is a constant struggle of Mind v. Matter. We are hampered by difficulties at every point. One cannot give full sway to his fancies, nor can he with success reproduce the scenes that he has designed. The real artists, mostly of European celebrity, who have made photographs of a high order, have been obliged to resort to tricks of every kind in their production. Composition printing, varied ways of masking the negatives while exposed, and an unlimited amount of retouching and etching are all resorted to. These pictures are condemned by many of our fraternity as being innovations. They want nothing more than can be accomplished by the simple exposure of a plate before a subject, arranged in a certain manner. To carry this idea out, our art is reduced to a very low level indeed, because it is difficult to comprehend that an intelligent man can daily, monthly, and yearly practice it, with the sources of information now at his command, and yet fail to secure good chemical or mechanical results. I maintain that in the execution of a picture we are confined within very narrow bound-"Manipulation," so much talked of, is probably of secondary importance, as being readily conquered; but we do have formidable enemies in our lenses, and in the necessity for making an exposure of the plate at a certain time. We are buffled by the idea that our models must become motionless, rigid statues; and we are forced to confess our entire inability to portray expression as we desire it. Talk of hanging up photographs with the works of Raphael, Rembrandt, Titian, Angelo, Correggio, or any others of that galaxy. Why, there was not a man amongst them that would not have kicked the camera out of his door or window. Just think of the absurdity of one of those men, covering his head with a

dark eloth and insisting upon his model to keep "perfectly still," or to "wink oceasionally," if necessary. Many of the photographs that excite the most admiration at the "expositions" are very faulty when examined with a literal reference to that which is expected of a perfect "sun picture." The true artist will use his lenses, cameras, and chemicals with the same feeling that he will display with paints, brushes, or chiselling tools. Unfortunately, he finds that our implements are not equally as controllable as the others. I was much amused by an incident that occurred in my rooms, some years ago. Mr. H-n is, perhaps, the most celebrated marine painter in America. Whilst paying me a friendly visit he picked up a large copy of a foreign view. He took some exceptions to the composition, particularly to the lines of the clouds. I suggested that he should make an improvement, when he at once selected some brushes and colors that were always near, and attempted by a few of his characteristically bold dashes to convey his ideas of the proposed alterations. Alas! he had albumen-paper to work upon, and you can conceive the result. The washes that he was so well capable of making with such fine effect upon suitable material, became in this instance meaningless batches of greasy, muddy-looking stains, and a very few sweeps sufficed to disgust him with the whole operation. Perseverance and diligence to a certain extent, combat all these difficulties; but where the worker has to expend his chief attention to the surmounting of mechanical obstacles, he loses the power of evincing ideality, of showing a genuine feeling, of creating that which has to be admired far more than the value of the stuffs that compose it, or for the manner in which they are combined. When you see such men as Salomon and Petsch, men who have devoted many of the best years of their lives to photography, men who have ever been regarded by us as successful in every sense, when you see them deliberately forsaking our ranks, and acknowledging that their efforts, after all, have been failures, you are forced into a train of thought that is by no means favorable to our calling. To complete your discomfiture, read Dr. Vogel's very able chapter on "Photographic Æsthetics," as published in his *Handbook*. The views that are so well expressed there cover the entire subject.

The thanks of the National Photographic Association are especially due to some few of its members who so disinterestedly gave the results of their labors for our mutual benefit, and I am glad that our esteemed President showed his appreciation of them. Certain formulæ and "processes" were freely given, and more lucidly explained than they have been by those who have been mulcting us. The *initiated* will have no great difficulty in appreciating the truth of the remark.

MONTEVIDEO, S. A., November, 1873.

ART STUDIES FOR ALL.

VII.

(Continued from page 538, Vol. X.)

51. We now come to the subject of composition. So far as we have gone, we have learned that what language is to the poet so are form, light and shade, color and accessories to the artist. When we have mastered these elements, we are ready to compose according to the requirements of our art. Nature steps in too, now, insisting upon obedience to her laws, with which one must be well acquainted, before he can proceed far in the art of composition.

52. Fortunately our work is made easier, from the fact that we are not called upon to make pictures continually of actors wherein we must represent tragedy or comedy, but what we do have to do, is to make our productions lifelike, i. e., like the living, natural persons before our cameras, and we must see that our poses, lighting, &c., harmonize with the character of the subject in hand. We should never lose sight of this law of unity, for on it, more than on any other, depends the pleasing effect of our work.

53. Success in composition requires, first, a careful observance of the rules as already treated in the various elements of art, and then an understanding of the principles of perspective, line, light and shade, variety, repose, simplicity, and harmony. Perspective and line demand the first attention, and

it will be well to read the sections treating upon these over again in previous chapters.

54. When making a group, the principal figure should receive the principal light, and the picture should not be crowded any more than the lens in use compels. If the group be a large one, it should be broken up into smaller ones. When a mass of people are crowded together and no prominence given to any one person, or any number of persons divided from the rest with reference to the effect of gradation, it is then merely grouping, and not composing.

55. Figures should be more or less varied in attitude, too, because exact repetition of lines produces monotony and formality. This variation should be governed by the subject and by the prominence of the figures. If you are making a family group, although the members thereof may wish the baby to be the most prominent figure, the correct way is to give the parents the leading position, and around them group the rest harmoniously. The principles of nature and the laws of art both frown upon making the figures all equally prominent. Having these things all arranged, we will proceed to the lighting in our next study.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

11.

IF Reutlinger's establishment reminds one, as I said in my former letter, of the appearance of the earliest photographic establishments of Paris, that which Nadar occupies shows an entirely new departure, and an eminently original personality.

It was in 1852 that Nadar, whose real name is Felix Tournachon, made his photographic debut. He was already very well known in the literary, artistic, and theatrical worlds, by articles in which were revealed keen wit, and a humor hearty and congenial, and by spirited drawings and mirth-provoking caricatures. Although born at Lyons, he was a Parisian par excellence. He knew everybody, and everybody knew him, for he had been successively a student of medicine, a designer, a journalist, and he had made innumerable friends among the

different classes of persons who had been his companions in work or pleasure. In 1852 he rented a small house with a garden attached, situate No. 113 St. Lazare Street (a cabalistic number), and he had painted on the wall in gigantic letters his strange fictitious name. He made there the portraits of every one who had any celebrity. His prints, which were large for that time, presented an entirely novel appearance.

Nadar worked generally in full sunlight, or at least by lighting the subject in such a way that one side of the face was very light, and the other very dark. This resembled very much what is now called the Rembrandt portrait. These artistic pictures had a great success, and soon the new photographer felt the need of enlarging his establishment. He opened a studio on the Boulevard des Capucines near the Madeleine. He had there in the second story a glassroom and ateliers, which differed only from those of his co-workers by their larger dimensions and their style of ornamentation. Everything on the inside and outside was painted red. From the vestibule which opened on the Boulevard to all the passers by (and in which were exposed numerous specimens), up to the iron work of the glass roof, everything presented to the eye this glaring color. Nadar himself appeared to his visitors wearing a long woollen jacket, which, together with his great height, his red hair, his curled mustache, and his pale complexion, gave him the appearance of a stage devil, as represented at the theatre in certain fantastical pieces. The prints he made were bordered with red lines. His signature and the address were printed in red. It was in fact a veritable carnival of red. As the Empire was then in existence, and as Nadar was known to be a Republican, it was said to be a striking manifestation of his political opinions.

At the same time Nadar organized another studio at the entrance to the Bois de Boulogne, for hippic photography. The idea was an ingenious one, but had no success, and our friend soon left this branch establishment to other persons, who were equally unsuccessful. At this time also Nadar was giving his attention to aerostatics and dreamed, as many others before him

had, of the possibility of guiding balloons. As the study and experiments in this branch require considerable expenditure, he was desirous of obtaining all possible assistance by associating the public in this new enterprise. Under his direction, an immense balloon was constructed called the "Giant," from which was suspended what might be properly called a little house, in which fifteen or twenty persons could be conveniently lodged. There were two ascensions made, each witnessed by an enormous crowd of paying spectators. The first was successfully made, but the second ended in a catastrophe, which excited the attention of the whole world, and from which Nadar and his wife only escaped by a miracle. In fact they remained several months between life and death.

This adventure made the name of Nadar popular, and he became celebrated. Since that time, although he has not given up his aeronautic studies, our friend has taken up with increased ardor his photographic works.

Some months ago he rented in the Rue Anjou St. Honoré, near the expiatory chapel of Louis XVI, between the Boulevard Haussmann and the Boulevard Malesherbes, that is to say in the most opulent and elegant quarter, a house, which he has converted into a little artistic palace. Hence pink has taken the place of the red in the general decoration, and the master of the house has substituted the white cashmere jacket for the scarlet one. Even the hair already silvered by age (Nadar is fifty-three years old), has acquired what painters call a neutral tint. The witty artist has remained Republican, but out of courtesy to the kings, princes, and great persons who visit him during their sojourn in Paris, he manifests his opinions less

The house that he occcupies opens by a large vestibule entered through a glass folding door. This vestibule is covered with frames in which are exposed various specimens. On the left is a large reception-room, adorned with very fine paintings, representing the different phases of the ascension of the Giant. Works of art and high-priced porcelains (Nadar is one of our principal

collectors in this line), attract the attention of the visitor. On the right of the vestibule is the sales-room, at the back of which, through curtains made of old tapestry, always open, is seen the principal room, which alone takes up the half of the ground floor. This large apartment, which resembles an art exhibition-room, is lighted from the top; a kind of gallery, formed by the slender columns that support the ceiling, surrounds it on three sides. It is there that the customers are received and await without impatience the time for sitting, having to entertain the eyes and the mind exquisite paintings, curious albums, rare flowers, and works of art of all kinds. But what interests visitors the most is to see the working of Viensseuf, the skilful painter attached to the establishment. Paying no attention to the curious eyes which follow his brush, the artist is seated in one of the corners of the immense room. His pallet and his color box are all he requires. Under his hand the enlarged print on canvas or paper is transformed into a splendid oil painting, or into a beautiful aquarel of life size. He excels especially in this last style, and one is forced to admire the truly extraordinary effects which he produces by the use of water colors in works of so large a size. His half-length portraits cost from one to two thousand francs; and his full length from three to four thousand; but Nadar's customers do not object to these high prices, for they are genuine masterpieces.

When the hour for sitting has arrived, the customer ascends to the second story, on which are the operating-rooms and the laboratories. The ladies, who may have something to change in their toilet, first stop on the ground-floor, where there is a large cabinet boudoir for their use. There, also, are the private apartments of Nadar and his family, and in the back portion of the building the rooms for retouching the negatives and the positive prints, the retary presses, and the sleeping apartments of the principal employés, who live in the establishment. In the first story is the main operating-room, which is fourteen metres long by twelve wide, and three metres in average height. The skylight, which is

straight and not inclined as is generally the case, is hung with three rows of curtains (made of muslin and cretonne, both of a grayish tint) which move in all directions. A small rolling chamber, which is also furnished with a double row of curtains, and which can be moved in any direction, allows the operator, according to the season, the hour, and type of the sitters, to light them under all their aspects, and at all angles, from a front-light to the divers glancing lights of that known by the name of "the illumination of the foot-lights"

Large backgrounds, painted by some of the best scene painters of Paris, represent in the most natural manner a great variety of subjects.

This immense terrace can be lighted as desired, from the north, the east, or the west.

Four laboratories are adjacent to the sitting-room; two for the preparation of the glass, and two for the development.

On the same floor are the rooms for printing, toning, and fixing. The first, although having glass sashes on every side, admits only the light from the north; the light is distributed with great discretion, and, moreover, almost all the sashes are glazed with ground-glass.

The preparation of the paper and the printing are done in a room that is almost entirely dark, situated in an angle of this atclier.

In this establishment the washing of the prints is the object of most particular attention. There is but one large tank, in which the water is continually and completely renewed by means of an automatic siphon. The tank is emptied and filled four or five times every hour. The prints are not touched by the hands of man, but free themselves in such a way as to avoid as much as possible any ulterior chemical reaction. Nadar takes upon himself the task of removing from the water every morning the prints immersed the preceding night, and he examines each with great care, rejecting all those that seem to him imperfect. The drying is done by means of blotting-paper, and the mounting and framing are done on the ground-floor in the salesroom. In the basement are the kitchen and dining-rooms, and the laboratory for the treatment of the wastes.

The persons employed may be thus described: Nadar, who has taken for aid, in the direction of his ateliers, one of the most esteemed Belgian photographers, Mr. Walter Damry, of Liege; Paul Nadar, who, though only eighteen years of age, is already a skilful operator, and actively assists his father; two aids and a boy complete the service in the making of the negatives; four printers and toners; six retouchers of negatives, and three artists for retouching the positive prints; three women for the mounting, and two ladies for the reception of customers and the keeping of the books; and finally, four male and female servants. Such is the ensemble of the working force at the command of the celebrated artist, to defy competition and overcome the difficulties of the art. Up to the present time success has crowned his efforts, and the public holds him in high favor. It must be admitted, however, that he has neglected nothing to maintain this position. He has anticipated all improvements, and his prints have a peculiar character, which renders them eminently artistic. Boldly lighted, they present startling effects, together with an exquisite purity of outside and a transparency of tone which render them most charming to the eye. They are especially remarkable for a harmony which is particularly striking in the portraits of women dressed in white. The entire gradation of whites, so difficult to obtain in photography, is represented alongside of the deepest blacks. The kind of portraits most generally made by Nadar is the album card bust, enamelled or plain, and the enlargements. All the eards made at this establishment have the date photographed in the ornamental designs which surround the picture. It is a very good idea, and is rendered more complete by the reproduction of the autographic signature when it is the portrait of a well-known person. I would mention that Nadar is the first in France who applied the electric light to photography. His experiments, at the time he made them, about 1860, attracted a great deal of attention. It was by means of this light that he was enabled to reproduce in a numerous series of views, of a

highly fantastic character, the interior of the catacombs and of the sewers of Paris. He has used also with success the magnesium light for the same purpose.

I will finish with a single word. Nadar calls his gallery a model establishment, and he is in every way justified in so doing.

Reading a Photographic Journal.

Is there any advantage to the photographer in reading a photographic magazine? This is a question that it seems entirely unnecessary to ask; the proofs are indisputably all on one side. There may be those who profess to be independent of any instruction that can be given them, and refuse to subscribe for a journal because they cannot find anything but what they know already. Doubtless there are very few who read and digest with sufficient interest and thoroughness, or are so susceptible of improvement as to feel that they grow in knowledge from day to day, or can compare the work of today with that made yesterday or last week, and see great strides of progress; but the benefit derived from reading the books and magazines in the hands of photographers is a matter of growth. The photographer who reads the current photographic literature is sure to be benefited, though he may scarcely be aware himself that any change has come over him, unless he makes a comparison with what he was a few years ago. He finds his mind has expanded; he has more generous ideas in reference to his business and to his neighbors. He is not afraid to meet a brother photographer, nor does he lock his dark-room door when one happens to visit him. He takes the journals and attends the photographic conventions, and believes he derives benefit from both. It is only necessary to draw a comparison between this man and the one who never reads and don't believe conventions accomplish any good. One is growing and developing in the light, the other remains stunted and dwarfed in darkness, unable to see his own condition and deformity; in short, the man who reads is mentally, artistically, and we are quite sure financially, the superior of the other.

The foregoing thoughts were suggested to us by a letter from one of our correspondents, accompanied by specimens of his work, which are strictly first-class and show a very great improvement over his previous efforts. We will suppress his name and give his letter here, as encouragement to others to follow his method of self-improvement.

NEW HAMPSHIRE, Nov. 22, 1873. Mr. Edward L. Wilson.

DEAR SIR: I inclose some specimens of photography as made by ----, which we flatter ourselves show a fair degree of improvement over previous samples sent you. You may remember that nearly two years ago I sent you some prints, asking you to criticize, which you kindly did, and to my benefit. At that time you asked me to make some negatives for the World. It was my intention to do so, but I was soon after taken sick, and was obliged to sell my business, and did not do anything more for over a year. But during that time I spent many a pleasant hour with your valuable journal, and although I fell behind many who were in daily practice, the time was not wholly lost to me. I have been a constant reader of the Philadelphia Photographer for several years, and am largely indebted to it for whatever success I have met with, and if at any time, for want of better, you would like anything from us, it would give us pleasure to send you the best we can make.

Respectfully yours,

Such tokens of appreciation of our efforts stimulate us to renewed energy to make *our* work—our magazine—still better and more useful than ever.

A GOOD SUGGESTION.

Mr. C. D. Mosher, of Chicago, seems to have caught the spirit of enterprise of the day, and of the city in which he lives, and makes to the members of the National Photographic Association the following useful suggestions, which we hope will be acted upon, viz.:

"I would make a suggestion for our

National Photographic Association, as a stimulant for all who exhibit photographs, to have their work nicely framed; the result would be to add more interest and greater attractions to visitors, as well as to the artistic photographer. Anything that will increase the interest, and will add greater attractions to our Gallery of Art, to induce visitors to swell our cash receipts, should be the one great object and aim of every individual member and photographer.

"My plan would be this,-to offer a premium to every manufacturer of frames for photographers for the best design in walnut or gilt of the different sizes we use, to be decided by three practical photographers, say Messrs. Rocher of Chicago, Gutekunst of Philadelphia, Frank Pearsall of Brooklyn, which would bring out every conceivable design and style; and every manufacturer would be anxions to exhibit their styles and advertise their goods upon the photographs of those framed, as that would show off their frames to the greatest advantage, and the photographs would be framed beautifully, we equally benefited, and our display in the Gallery of Art complete

"I will give, to lead off, five dollars premium for the best style of 8 x 10 walnut frame, and five dollars for the best 8 x 10 gold-gilt frame; and let some other photographer give equal premiums, or more, on other different sizes through the whole catalogue; by that way we will all be benefited—the manufacturer of frames and the photographer.

"Very respectfully yours,
"C. D. Mosher."

OUR PICTURE.

The beautiful examples of photography which grace our current issue are from negatives by Mr. Augustus Marshall, Boston, Mass., and are graceful and lovely in all their details. Mr. Marshall always stood among the best of our photographers, even years ago, when good photographers were much more scarce than poor ones are now, but he has always been a progressive man, and not long ago went to Europe to satisfy his longings for a ramble among the places

of photographic interest there. Since then he has made us these negatives, and they are examples of his average work. We think them well worthy of study on account of their excellent chemical qualities, and of their careful lighting and posing.

As is our custom, we asked Mr. Marshall for some ideas concerning his method of working, and his answer we append, viz.:

BOSTON, January 8th, 1874.

The negatives sent were made in a bath of the usual strength with a liberal dose of nitric acid.

COLLODION.

Grind the potassium to a powder in a glass mortar, add the cadmium, and pour on alcohol, grinding all the time until completely dissolved (it will take from four to six ounces); add this to the plain collodion made from the balance of alcohol and ether.

This makes a very soft-working collodion, very good for Rembrandts.

I hardly think this item worth publishing, as it contains nothing new. I hope to make something better for you before long, in the way of negatives.

Just before Christmas, in making up a silver bath, the bottom of the bottle came off, by a hard knock, and the silver (2 lbs.) went on to the dark-room floor. There was pretty lively work for a few minutes, mopping it up with towels and any old cloths we could get hold of, and wringing out into an evaporating dish. It was a sorry-looking mess, being a mixture of silver, hypo, iron, and dirt. The young man working for me suggested throwing it down with strips of copper, obtained at the coppersmith's. This was put into the bath and allowed to remain some hours, or until by adding muriatic acid there was no precipitation to the water. Again, this was now washed thoroughly in a good many changes of water, until by adding weakened ammonia there was no longer observed a change to the blue tint. Then being well drained, and put over a heater where there was a chimney to carry off the fumes, a mixture of nitric acid C. P.,

one part to two of water, was poured on in sufficient quantity to dissolve the silver. Evaporated and fused, it made as good a bath as "never was." Not more than half a pound of silver was lost.

All this may be nothing new to most of your readers, but it may benefit some one placed in like circumstances.

Wishing you "Happy New Year," I remain, yours truly,

A. MARSHALL.

Here we have not only some useful hints concerning the picture, but also a valuable method which will come good whenever an emergency, such as he describes, occurs. Mr. Marshall, it will be seen, promises us "something better" presently. We shall gladly welcome it from him, or from any of our working subscribers, at any time.

Something about Stereographs.

BY J. LEE KNIGHT.

That popular scientific toy, the stereoscope, having occasioned a constantly increasing demand for a class of pictures only rendered possible by means of photography, I submit the following details of making such pictures, thinking that the directions here given will simplify the tedious and troublesome labor of trimming, transposing, and correctly mounting stereoscopic prints.

Taking for granted that the chemical manipulations and artistic selection of views have been more fully discussed by abler operators, I come directly to the consideration of some details which have proven as satisfactory in practice as they are plausible in theory.

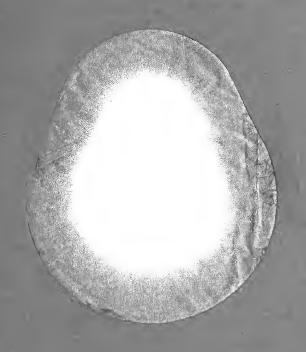
I conceive the theory of a stereograph to be, that the two pictures which are to finally blend in the stereoscope and appear as one reality to the eye should be taken from the same elevation, but from two points of perspective as far distant as are the two natural eyes apart; that they should be of the same size; that they should be transposed in mounting, and that they should finally both be placed vertical to the same horizontal base-line. These conditions are all

easily and accurately accomplished as fol-

I have drawn on the ground-glass of my camera three pencil lines, horizontal to the base and about an inch apart; I have also imbedded in one of the side-rails of the base of my camera, and near the back end, a small spirit-vial, or levelling-tube (bought at any hardware store for ten cents), which is securely protected by a piece of sheetbrass let in flush with the top of the rail, and having a slot an eighth of an inch wide and two inches long through which to observe the air-bubble. These two simple devices enable me to level up readily and perfectly, by observing that some one of the pencil lines passes through a point common to both images projected on the ground-glass by the two matched lenses, and that the air-bubble of the spirit-level comes to the centre marked on the brass guard.

With the camera properly levelled and a negative taken and varnished I am ready for using the first trimming pattern. Of these I have three, cut from strips of glass, one 3 by 9 inches, another 3½ by 9 inches, and a third one 3 by 5 inches. If I desire prints for the ordinary width mounts I use the 3 by 9 inch pattern; if of the extra width, the 31 by 9, laying it on the varnished side of the negative, and being careful that the lower edge is on an exact line from some given point in one picture to the corresponding point in the other one. I then with a knife cut through the varnished film on each side of the pattern from one end of the negative to the other.

These marks are useful as guides in placing the paper when printing, and the black lines they give in the print serve also as guides in the final trimming. We sometimes trim the long way before toning. When the prints have been toned and washed, and are ready to be taken from the water, I bunch them, faces all one way, press the water well out, and hang up by a clip to drain. They thus remain straight, and are much easier to manage than if hung singly and allowed to curl up. When nearly or quite dry they are made ready for trimming by laying the bunch face downward, and with a soft pencil drawing two light lines on the back of each, thus X, crossing



SAMPLE OF WAYMOUTH'S IMPROVED VIGNETTE PAPERS.

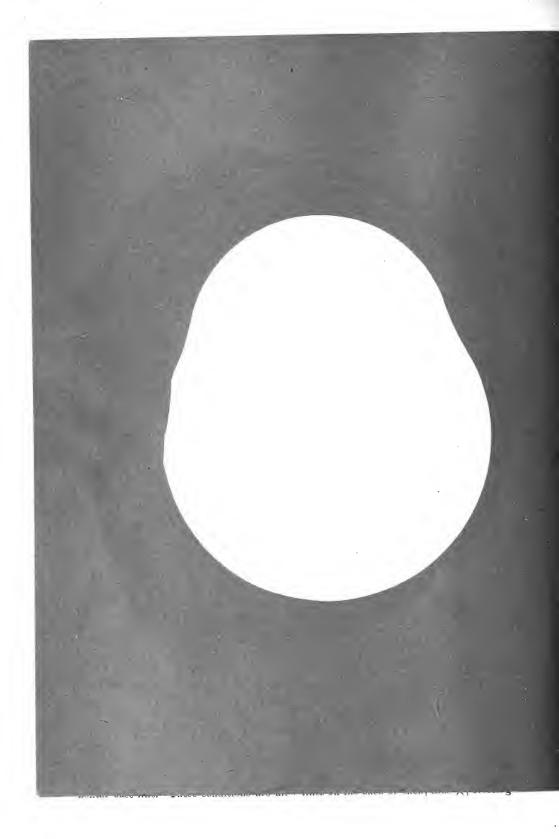
[Entered, according to Act of Congress, in the year 1873, by Benerman and Wilson, in the Office of the Librarian of Congress, at Washington.]

TRY IT ON ONE OF YOUR OWN NEGATIVES.

Directions.—Cut this outside paper to the size of your negative, Adjust the lithograph design to suit the figure on your negative by holding them up to the light; paste the paper to the outer surface of the negative or to the printing frame over the negative and print as usual.

For further particulars and prices, see advertisements, and Editorial. This size is \$1 per dozen.

BENERMAN & WILSON, Manufacturers, S. W. cor. Seventh and Cherry Sts., Philadelphia.



each other near the centre of the print then place them one at a time, face up, on a piece of glass, lay on the long pattern of the proper width, bringing the lower edge exactly to the black line given by the scratched line in the foreground of the negative, and with two strokes of a sharp knife trim the print at top and bottom from end to end. If entirely dry, the pattern will fill the space between the two black lines; if somewhat damp, the sky line may project a trifle beyond the upper edge of the pattern. In no case can the black lines be of any damage to the print, but, as above shown, are of real value in accurate print-After trimming at ing and trimming. bottom and top I fold each print double, face outward, by one straight fold across the centre, observing that the edges are even, so that the crease or fold will be exactly perpendicular to the base or lower edge. I then lay on the 3 by 5 pattern crosswise of the doubled print, bringing the right-hand side up as near the folded edge as possible, and having evened the lower edge, press down firmly, and with one stroke of the knife I trim both ends of the print at once, and with a second stroke I trim off the slightly projecting folded edge, which cuts the print in two in the centre.

Placing the pieces on a pile in regular order, they are ready for mounting, unless it be desired to wet them down, which may readily be done by placing them, one by one, in the corner of a tray, seeing that they do not spread enough to pass each other, which would mix them.

In mounting, I paste one piece and place it on the mount, without rubbing down, half an inch from the end of the mount, horizontal to, and about a quarter of an inch from, the bottom of the mount, and at that end where the > shaped pencil-mark, (which is half of the original × made on the whole print) will point outward. This is the guide by which I know the pieces are transposed. I then paste the other piece, lay it on, and bring the two pieces snug up together in the centre—neither overlapping each other, nor leaving any space between, and being quite careful that no jog occurs where the pieces join, but that the edges

are even at bottom and top; I then lay on three or four thicknesses of white print paper, and rub both down at once.

If the camera was properly levelled, the pattern placed accurately in lining the negative, and subsequently in trimming the print, there is no reason why the finished picture should not readily and perfectly blend in the stereoscope, and effectually avoid that chief of all annoyances in looking at stereographs,—distortion from inaccurate mounting. A stereograph imperfectly mounted is worthless as a stereograph, but I believe these simple directions will enable even the merest tyro to produce views free from this fault, and may possibly furnish some hints that will prove serviceable to the very best of us.

If the completed picture be a meanly executed work because, when looking at it, we are tempted to think we could walk round some object in the foreground, we shall, nevertheless, have the satisfaction of knowing that we have proceeded de legibus, and must conclude that the theory is at fault rather than the practice. We will, moreover, besurprised, and possibly pleased, to discover what a vast multitude of otherwise very clever people are anæsthetically afflicted with a species of mental aberration, which, while blissful to them as a condition of utter ignorance of true art culture, proves a source of profitable revenue to ourselves.

And, in conclusion, I respectfully suggest that if our own optical art perceptions have not been too severely corrected for antique actinism and preadamite refraction, even those who have acquired the power of correct vision, and cultivated their tastes, will hesitate to impugn our motives if we ply our vocation by furnishing our patrons with the means of enjoyment afforded by so inexpensive and innocent a scientific toy as that monstrous innovation of modern mechanical art, the stereoscope!

IF your prints show a scum or deposit on the surface while toning, wipe the surface with a piece of soft cotton-flannel. It will remove the deposit and leave the prints bright and clear.



Answers.

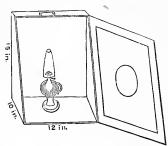
To QUERIST.—After the experience described with your bath, we should conclude there was not much silver in it. The best way will be to take it to an assayist or refiner, and let him see what he can make of it.—SPHYNX.

To C. A. B.—Try Mr. Clemons's method of burning out with alcohol, as reported in the National Photographic Association's proceedings, September issue of this journal.—Sphynx.

To J. A. W. PITTMAN.—Two good formulæ, for printing on canvas, may be found in the *Philadelphia Photographer* for July, 1869, page 243. We would reprint them here, but they are too long for the limited space of Sphynx.—Sphynx.

RETOUCHING BY LAMPLIGHT.—The best and only successful means of accomplishing retouching at night, so far as my experience goes, is as follows:

Take some thin boards, or an old box, and make a retouching stand about the size and shape shown in the drawing, line the



same with white paper, set it on a stand or table, light a kerosene lamp, and put it in the box; make a sort of shade of foolscap or note paper (or wrap the paper around the lamp chimney loosely), or interpose one or more thicknesses of ground-glass or tissue-paper, or in fact any medium which will sufficiently diffuse the light. Shut the door of the box, and suspend or secure the negative so that it will lie flat upon the front, and covering the opening, then proceed as usual. You will find it necessary to use more diffused light for thin negatives, &c.

Inclosing the light in this manner concentrates it upon your work, and shuts it out of the room, and although there is nothing equal to daylight, still with care and practice a great deal can be done at night.

Hoping it may answer McC.'s purpose, I remain yours, &c., E. Z. W.

GERMAN CORRESPONDENCE.

Microphotographic Stereo Slides — Hypo in Bristol Board: how to Detect it and how to Remove it—The Absorption of Actinic Rays in the Atmosphere—Dubroni's Apparatus—Dull Weather in Germany—Effect of Lenses of Strong or Feeble Light on the Brilliancy of the Picture—Muybridge's and Kilburn's Pictures in Berlin—Marcy's Sciopticon—Intensity of the Magnesium Light.

THE attention of the public has recently been directed to a special kind of stereoscopic pictures, but so far only a few of them have been published. I refer to stereoscopic views of microscopic objects. Microphotographs are plenty, and as magiclantern slides they form an article of trade; but stereoscopic pictures of microscopic objects are much more instructive, for from these we learn what is near and what is far, what is hollow and what is elevated. Such stereoscopic effects are furnished by the binocular microscope, an invention of your countryman, Biddle (1853), for the naked eye. But so far binocular microscopes are very expensive, and only in the hands of a few. It is easy, however, to make these stereoscopic pictures with any ordinary microscope. It is done by skilfully blending the object lens of the microscope. Years ago I called attention to the fact that a very large lens, for instance, a portrait lens, yielded a picture quite different from the one taken with a lens of smaller opening.

The right half of the lens takes in more of the right side of the person, and the left half of the lens more of the left side of the person. If we now cover one-half of the lens and take two pictures, one with the right half and the other with the left half, the two together will give a stereoscopic effect. The same principle we can employ to make microscopic pictures. The lenses of the microscope are of course very small, but still they are much larger than the object, which is a mere speck; in fact they are, when compared with the object, still too large. If we stop off, first the one half and next the other half of the lens and take a picture, we obtain in fact a very complete stereoscopic effect; and Dr. Fritch has made in this manner excellent microphotographs for the stereoscope. This new process might gain in America new friends for microphotography.

Recently several cases have occurred here where pictures have turned yellow in consequence of impure mounts. This yellow fever manifested itself in the shape of small spots, sometimes not larger than a pin's head. A great number of such mounts had to be rejected, and the pecuniary loss was considerable. A quantity of them were handed to me for examination, and I was surprised to find but an exceedingly small portion of soda in them. This hypo was a remnant of the soda employed in the bleaching process, in order to remove the chlorine. In order to test them for soda, we proceed as follows: 1 grain of iodine is dissolved in 25 cubic centimetres of alcohol; of this solution we take 21 cubic centimetres, dilute it with 900 cubic centimetres of water, and add 100 cubic centimetres of a decoction of 1 part starch in 100 parts of water. This deep blue fluid contains per every cubic centimetre $\frac{1}{10000}$ of iodine.

In order to test a questionable mount, we take a piece of about three times the size of a carte de visite, cut it to pieces with a pair of scissors, and place these in a clean glass vessel; we now pour 100 cubic centimetres of boiling distilled water over it, and place it for twelve hours in a warm place. We next take two perfectly clean test-tubes, place in each of them 1 cubic centimetre of the iodine solution, and dilute the one with

15 cubic centimetres of water, the other with 15 cubic centimetres of the water in which the mounts have been soaked. If a trace of soda was contained in the latter it will manifest itself by discoloring the blue solution of iodide of starch, and this is easily recognized by comparing the two tubes. If the quantity of soda is exceedingly small, the discoloration will not manifest itself at once, but occur after some time has elapsed. It is even possible to determine approximately the quantity of soda that is present in the mount. Suppose we have used 15 cubic centimetres of the water in which the mounts have been seaked, to discolor 1 cubic centimetre of iodide of starch solution, it follows that the 100 cubic centimetres of water which were used to soak the mounts, would discolor 62 cubic centimetres of iodide of starch, those contain $6\frac{2}{3} \times \frac{1}{10000}$ iodine. One part iodine requires two parts hyposulphite of soda to discolor it, hence the mount in question contains $\frac{13}{10000}$ gramme of hypo; and if three pieces of the size of a carte de visite mount have been taken, each piece of the size of a carte de visite would contain $\frac{4}{100000}$ gramme of hypo. In fact I have found quantities which approximate the above. I found, for instance, in a carte de visite mount $\frac{1}{3125}$ gramme of hypo. Some will say that so small a quantity can do no harm, as the quantity of silver, which is the coloring substance, is also very small.

According to Davanne, one sheet of paper contains 0.075 nitrate of silver, and hence one carte de visite $=\frac{1}{36}=\frac{3}{1440}$; hence a carte de visite contains 6.6 times as much silver as the above carte de visite mount contained hypo. If 31 parts of hypo suffice to convert 27 parts of silver into sulphate of silver, i. e., turn the paper yellow, it follows that the above apparently insignificant quantity of hypo is capable of converting one-eighth of the silver of the picture into sulphate. The silver in the picture is very unevenly distributed, the lights containing much less than the shadows, and the above quantity of hypo is abundantly large to turn the lights yellow.

The question arises if such mounts, the injurious defects of which only manifest themselves after they have been bought, may still be made serviceable. This is in

fact possible; it is only necessary to treat the mounts with a material which destroys the hypo. This substance is iodine. The mounts are moistened with the above-mentioned tincture of iodine (1 part iodine, 900 water) by dipping them into it for one minute, placing them next on clean blotting-papers to dry. This suffices to destroy the hypo.

Lately I have made a number of spectral observations, which furnished me important data on the changes of the chemical intensity of the light in the atmosphere. It has been known for some time that the chemical intensity of the light of the sun becomes more feeble in proportion as the sun approaches the horizon, and that watery vapors decrease the chemical intensity. There are, however, other circumstances which affect the transparency of the atmosphere. I noticed this when making my experiments with bromide of silver plates. Sometimes, with a perfectly clear sky I obtained only a very limited picture of the spectrum; and at other times, when the atmosphere was less clear, the picture was much more complete. For instance, on October 7th, at 2 o'clock P.M., I obtained with ten minutes' exposure a pieture extending from violet to red, while on October 17th, the action extended only to near the yellow, while at the same time the sensitiveness to ultra violet was greater. On the 18th of October, violet did not have any effect at all on the bromide of silver, while red acted considerably. On October 29th, the action of violet was still more feeble, while that of red increased. One day later, the photographic action of violet had increased again, red having 'decreased correspondingly. short, you see how fluctuation in the intensity of the chemically active rays occurs, of which the eye perceives nothing; and it is only to be regretted that we do not possess a reliable instrument, a photometer, with which we can measure these vibrations. The chemical photometers which have been constructed so far determine only the combined effect of the solar light, but they make no distinction in the action of the different colors, which, as my experiments have demonstrated, is very variable. far, the violet, the blue, and the green rays, or in other words, the rays of certain colors, have proved photographically practicable; a photometer should therefore fix the light intensity of these colors, in order to become practically useful.

In the last session of our Society, an apparatus was produced which really belongs to the class of photographic sea-serpents, i. e., to that class of rare occurrences which sometimes suddenly start into being, in order to disappear with the same rapidity; a few years later they reappear, after being generally forgotten. The apparatus in question is that of Dubroni for making photographic plates without a dark-room. There are many constructions of this kind, and Dubroni himself has constructed two of them; one of these is but little known, perhaps because the price is rather high, but this one has such excellent qualities as one would hardly suppose at first sight. It is a plate-holder, in which a porcelain dish has been fixed for the purpose of sensitizing and developing; this porcelain dish is, in fact, but a square frame, which has been hollowed out below, and the nitrate bath can be poured into it; at the back it has been ground down in such a manner that a eollodionized piece of plate glass can be placed firmly against it; all the rest is similar to an ordinary dark slide, with the only difference that the two shutters contain small windows of yellow glass. When the plate has been inserted, and all the shutters have been closed, the sensitizing is accomplished by tilting the slide-holder. The silvering solution is afterwards withdrawn by means of a pipette, and the plate is then exposed. After exposure, the developer is introduced by means of a second pipette, and by tilting the box the development is effected; the process may be watched through a yellow window. Mr. Prümm has worked repeatedly with this apparatus, and very successfully. Condition of success is cleanliness. The frame has to be cleaned very thoroughly with blotting-paper after each exposure.

Every one here is complaining about the weather; since two weeks we have not seen the sun. The precious Christmas days, which generally bring numberless orders, have passed by without bringing any busi-

ness. Some photographers have taken medallion cartes by lamplight with tolerably good results.

In your August number, page 227, I wrote to you concerning the action of objectives, either feeble or strong in light. The belief is very widespread, that the former even with a correspondingly longer time of exposure do not yield as brilliant pictures as the latter. I found that this belief was erroneous, and the reason of it is that with long exposure a considerable portion of the silver solution drips from the plate, and hence the developed picture appears weaker than a plate which is developed after a short exposure, and where the larger portion of the silver bath adheres to the plate, and hence on being developed yields a more brilliant picture. According to my opinion it is not the objective of great lightintensity which yields the brilliant picture. Our friend Simpson has his doubts about this view. He maintains that the greater brilliancy of pietures taken with lightstrong lenses has been established on dry plates, on which a dripping of the silver solution is out of the question. I admit that Mr. Simpson is right in this particular, i. e., that light-strong objectives yield more brilliant pictures with dry plates than objectives feeble in light; but I dispute the conclusion drawn from this, namely that the light-intensity of the instrument is the direct cause. So far as I know nobody has made comparative experiments, i. e., worked with two instruments simultaneously, and fixed the time of exposure reverse to the light-intensity of the instrument. Experiments with instruments the light-intensity of which is exactly known, can only decide this question. The experience that objectives feeble in light yield weaker pictures on dry plates, I explain to myself quite differently. Experienced dry-plate workers know very well that it is better to take the time of exposure a little too long than too short. This rule they employ principally with weak objectives. They expose (fearing underexposure) rather too long than too short, and the results are feeble pictures.

The cause is, therefore, an individual one, and the instrument is not to blame, but rather the worker, who, generally, does not

know the exact light-intensity of his objective. That this is actually the ease I have recently established practically.

I took three tannin plates and exposed them in a stereoscopic camera, the opening of one of the objectives being stopped off in such a manner that its light-intensity was twelve times less than the other, and I exposed the plate under the "stopped off" lens twelve times longer. The result was that the two negatives developed with equal rapidity, and the brilliancy of the two pictures was absolutely equal. I cannot, therefore, change my former opinion, and insist upon what I have said before.

Two American novelties have recently attracted a good deal of attention here; one of them, landscapes by Mr. Muybridge of San Francisco. To the visitors of the Vienna Exhibition these pictures were no novelties, but in Berlin they were not generally known, and the excellence and large size of the plates, the brilliancy of tone, the happy selection of the objects, excited general admiration.

Landscapes of this size are the exception here, and the thought that Muybridge, with his mammoth camera for plates of twentytwo inches, climbed mountains, fills many a one with admiration and respect.

The numerous stereos of Muybridge found also many admirers. He has even accompanied the campaigns against the Modocs, and photographed the most interesting scenery and incidents. These pictures, which place before us golden California, many thousand miles away, and which make us acquainted with its cities, landscapes, and inhabitants, as if we saw them, demonstrate more and more the invaluable service which photography renders the study of geography. Equally interesting, and for the same reason, are the pictures by Mr. Kilburn, of a country almost unknown to us, namely, Really, the American photog-Mexico. raphers are an enterprising set. Let us rejoice that our mutual friend Kilburn safely returned from that land of robbery and murder, and perhaps I will meet him and his camera, soon, on a trip through Europe.

For another American novelty we are indebted to Mr. Marey. Mr. Woodbury introduced his sciopticon here. I have tried

the same and compared it with my old magic-lantern. The light-intensity of the instrument is really astonishing. I have never been able to get so much light with a petroleum lamp, and curious also is the little space the instrument occupies. The saying "Multum in parvo" is really well adapted to it.

I have repeatedly employed magnesium light for the lantern. It has, however, for a long lecture many drawbacks; not to mention the smoke, it drops too much. Large particles of burning metal drop off, and the picture looks "flickering," i. e., the brightness is changeable. Winstanly has recently determined the brightness of the magnesium light, as compared with the lime light, and he found the latter four times brighter than the former. The calculation is based on the burning of one wire and a consumption of 28 grains per minute. When two wires are burned simultaneously the brightness will be double.

Yours truly,

DR. H. VOGEL.

GOOD FOR THE PHOTOGRAPHERS.

"The Philadelphia Photographer, which has just completed the tenth year of its existence (growing with the growth of the art it illustrates), has given some advice to photographers that should be echoed through all trades and professions It says: 'What shall I get up for the Centennial?' is a query which every photographer should ask himself now day by day, and prepare for a substantial answer. The Centennial Exhibition is not to be an ordinary one, such as we have each year under the auspices of the National Photographic Association, but a very extraordinary one, where your best work should be shown in elegant style. The Centennial Commission are disposed to treat photographers very favorably, and to have a hall especially constructed for the art of photography. This being the case, let us not fail to do our best, including liberal subscriptions to the stock.'

"Few departments of the exhibition can be made of greater public interest than that devoted to specimens of photography. As an art, it is much younger even than the youthful nation among whose industries its best results will be exhibited; and, although it now takes rank with those arts that are older than the nation, it has before it a future to which its present position is but a step. The public obtains some notion of the advances made in photography by the gradual improvement in the pictures produced by this process, but does not realize that the process itself has been almost revolutionized within the last ten years, and that to-day equally good pictures are made by modes of procedure based on two opposing principles. In some of its features photography is yet a mystery to those who practice it with the best effects, but the mystery is gradually being solved under well-disciplined agencies, such as societies, annual conventions and exhibitions, and monthly magazines entirely devoted to the discussion of problems of photography in its relation to art, optics, and chemistry. Probably the best agency is the National Association, which holds annual conventions, where papers are read and discussed, and the pictures made by different processes are exhibited. At the last convention of this Association, discussions were held which curiously illustrated the fact that the 'science' involved in photography is no more exact than some of its more pretentious sisters. One set of photographers, it appears, used a bath for negative plates containing a large proportion of acid and a small proportion of silver, and another set used a bath strong in silver, but only slightly acid. Each set produced good pictures, while the conservatives could see no advantage in using either formula of the radicals, as they by a medium course also produced good pictures. There was a similar disagreement on the subject of skylights and on many other questions involved in the art. All of these disputed points must be settled before photography can make a near approach to perfection, and the fact that they remain disputed while such splendid specimens of the art are made as we daily see in shop windows, suggests the hope that, in some period of the future, 'the sun artist' will give us pictures as much superior to those of to-day as they in turn are to the prints with which the town was satisfied ten years ago. Such results are ordinarily the slow outgrowth of patient study and experiment on the part of a few, but in photography, through the medium of societies, magazines, and exhibitions, the humblest member of the craft contributes something to the general fund of information and aids in new discoveries.

"The work of the photographic chemist does not consist alone in the production of pictures artistically true in tone through the medium of chemicals, for photography has become of late the handmaid of the higher sciences, and the results of nearly every discovery in photographic chemistry have been utilized in some practical way for the benefit of mankind. Photography has a still greater value as a cultivator of art tastes, for it puts in the hands of the poorer classes exact representations of beautiful scenery, or exact copies of fine works of art, instead of the vulgar prints and coarse daubs that were common twenty years ago. Such an art is deserving of recognition in the exhibition of a nation where it has obtained possibly its greatest development."

We extract the above from Mr. George W. Childs's paper, the Philadelphia Public Ledger of December 19th, in order to give encouragement to our readers, and to enable them to say with us, "Good for the Public Ledger." When we, as a profession, can have such recognition as this from the press, we think we are entitled to feel proud of it. What is said here about our magazine, i. e., that it is "growing with the growth of the art it illustrates," is very cheering to us. Mr. Childs may not remember, but we do, that when about to cmbark in our enterprise we asked his opinion as to our probable success. He answered, "You won't succeed. Photography won't support it." "Then," said we, "we will make photography support it," just as Mr. Childs one day said, "Some day I will own the Public Ledger." In our little circle, with him as an example, we have tried to do what he has done in a much wider field. We are glad that he has changed his mind about our art; many have, and it deserves it. Let such good words as this cheer us on to upbuild and uphold our National Association, and to do better, and better, and better.

As to the *Centennial*, we mean to drum you up every month on this subject, so please see what we have to say concerning it on another page.

Natural Composition Pictures for the Stereoscope.

WE approve of the efforts of such parties as Messrs. Loescher & Petsch, and Griswold, and Weller, to produce natural groups for the stereoscope, which tell stories interesting to all. It is good practice, and it brings ample remuneration, for such pictures are always most pleasing to the public, and are readily purchased.

But we have before us a series of pictures that are entirely new in conception, and most beautiful in execution. We allude to twelve perfect gems for the stereoscope, just published by Messrs. Kilburn Brothers, Littleton, New Hampshire, illustrative of some stanzas of Mr. James Russell Lowell's poem of "The Vision of Sir Launfal." In the prelude to part second of that poem we read how—

"Down swept the chill wind from the mountain-peak, From the snow five thousand summers old;

On open wold and hill-top bleak
It had gathered all the cold,

And whirled it like sleet on the wanderer's cheek; It carried a shiver everywhere—"

But now begin the illustrations:

- 1277. The little brook heard it and built a roof, 'Neath which he could house him, winter-proof;
- 1278. All night by the white stars' frosty gleams He groined his arches and matched his beams;
- 1279. Slender and clear were his crystal spars
 As the lashes of light that trim the stars;
- 1280. He sculptured every summer delight
 In his halls and chambers out of sight;
- 1281. Sometimes his tinkling waters slipt
 Down through a frost-leaved forest crypt;
- 1282. Long, sparkling aisles of steel-stemmed trees Bending to counterfeit a breeze;
- 1283. Sometimes the roof no fretwork knew
 But silvery mosses that downward grew;
- 1284. Sometimes it was carved in sharp relief With quaint arabesques of ice fern leaf;
- 1285. Sometimes it was simply smooth and clear, For the gladness of heaven to shine through, and here
- 1286. He had caught the nodding bulrush tops
 And hung them thickly with diamond-drops,

1287. That crystalled the beams of moon and sun And made a star of every one:

1288. No mortal builder's most rare device Could match this winter palace of ice.

The illustrations, as our readers have all guessed, are ice views, and it seems as if the poet must have had them before him when he wrote his beautiful lines. As to the talented photographer, he has given us more superb illustrations than the mind and pencil of any living artist could do, for he has sought out amid the scenes about him, where the frost-king reigns so much of the year, all the pictures drawn by the poet's pen. We have "The Little Brook," the "Crystal Spars," the "Tinkling Waters," the "Aisles of Steel-stemmed Trees," the "Ice Fern Leaf," the "Nodding Bulrush Tops," the "Diamond Drops," the "Frostleaved Forest-crypt," and the "Winter Palace of Ice," all most faithfully rendered by the camera and the master-manager of it. We did not know, much as we have been there amongst it, that such a variety of ice-work could be found.

It truly seems

... "As if every image that mirrored lay,
In his depths serene through the summer day,
Each fleeting shadow of earth and sky,
Lest the happy model should be lost,
Had been mimicked in fairy masonry
By the elfin builders of the frost"—

and caught by the photographer.

We think this series is among the happiest bits that our friend Kilburn has ever made by means of his magic camera.

TAKE CARE!

WE have before us cards and circulars and letters which have been scattered among the fraternity pertaining to the following:

- 1. A process for coloring, called the "Pearl Crayon Process." The seller of this uses the N. P. A. monogram trade-mark on his cards.
- 2. An "instrument" to "last you a lifetime," for retouching negatives, the "most wonderful and valuable discovery ever made in the art of photography."
 - 3. "A new process of copying and en-

larging from small pictures," on "metallic plates."

Our subscribers ask us for advice on these matters.

As the parties who sell such things do not usually wait upon us, we cannot tell much about them unless we purchase ourselves, as we often do in such cases in order to post our readers. The first we refused to advertise in our magazine; the second we have seen results by, but they do not near approach the quality of mediocrity.

There is one safe rule for our readers to go by, and that is to *take care* how they buy anything, no matter how fairly it is represented to them, unless an opportunity is given to test it.

Sulphate of Silver Pinholes.

BY JOHN M. BLAKE.

CRYSTALS of sulphate of silver often form during development, when working with a strong bath, say 60 grains, and developing with sulphate of iron. The film may come out of the bath in perfect condition; but if we develop the plate, and then drain and blow upon the surface to remove still more of the solution, it will be seen that the film has a velvety look. This is caused by a multitude of small crystals of sulphate of silver. They will be removed by solution in less than a minute, if the plate is washed with water. For this reason they are quite likely to escape notice. The effect produced by the formation of these crystals is to cover up a portion of the film under each of them, and thus hinder the deposit. Pinholes are left on the solution of the crystals, and the general effect is to give a peculiar, coarse look to the image. Pinholes of this kind have not the character of a distinct puncture entirely through the film, since the growth of the crystals, in the high-lights at least, began after development had commenced.

As proof that these crystals are sulphate of silver, it may be mentioned that their solubility in water is identical with that salt. Also a simple saturated solution of sulphate of silver does not act upon them.

They form as well on a plain collodion film that has been soaked in the strong silver bath. If, while working a bath with which ordinary sulphate of iron developer constantly and abundantly gives these crystals, we substitute protonitrate of iron, or pyrogallic developer, the crystals cease to form; but simple sulphate of potash, or of ammonia will produce them fully as well as sulphate of iron.

The crystals by sulphate of potash are larger in size than those produced when sulphate of iron is used, and their microscopic character is also somewhat different. Those produced by sulphate of ammonia also have a character peculiar to themselves. Certain sulphates appear to produce these crystals out of proportion to the amount of sulphuric acid which they contain. Probably this is not due to the formation of a double sulphate of silver, since a crystal, started with sulphate of iron solution, was seen under the microscope to continue its growth in mixed solutions of sulphate of potash and nitrate of silver. In explanation, double salts often are less soluble than their two constituents, and a crystal of simple sulphate of silver would not be built upon by a double salt. If the crystal by sulphate of iron was a double salt to begin with, and this is possible, then supercrystallization might occur, and a greater difference in the facility of production of pinhole crystals by different sulphates than actually exists would be quite consistent.

We will now add the results of some trials with several sulphates that are frequently added to the sulphate of iron developer. It must be understood that the results will vary within certain limits, according to the habit in flowing the developer and the consequent amount of dilution or loss of silver nitrate; also upon the amount of exposure and consequent absorption of silver in forming the image. The examples given were at the maximum; plain collodion films were used, soaked in the different baths. Temperature, 60° to 70° F.

A solution of sulphate of iron, 100 grains to the ounce, gave no sulphate of silver crystals on development with a film taken from a 40-grain silver bath; on one from a 45-grain bath a few crystals formed in the thick edge of the film; a 55-grain bath gave them abundantly; a 50-grain iron solution behaved the same as the 100-grain; a 25-grain iron gave none with a 45-grain bath, a very few with a 50-grain, but abundantly with a 60-grain bath; a 15-grain iron solution gave none with a 60-grain, a few with a 65-grain, and more with a 72-grain bath.

A sulphate of potash solution, 30 grains to the ounce, gave a few crystals with a 40-grain silver bath, and a 20-grain potash also a few with the same bath; a 13-grain potash gave none with a 55-grain silver, but a few with a 60-grain bath; a 9-grain potash gave a few with a 66-grain silver.

A 20-grain sulphate of ammonia solution gave the crystals with a 40-grain silver; a 13-grain ammonia gave a few with a 45-grain silver, and abundantly with a 60-grain silver; a 9-grain ammonia gave a few with a 55-grain silver.

A 40-grain sulphate of copper gave a few crystals with a 40-grain silver, and abundantly with a 60-grain; a 20-grain copper gave a few with a 50-grain, and abundantly with a 60-grain silver; a 13-grain copper gave none with a 60-grain, but gave them with a 66-grain silver.

A 40-grain double sulphate of iron and ammonia gave a few crystals on the thick part of the film, with a 45-grain silver, and plenty with a 50-grain; a 20-grain double sulphate solution gave none with a 55-grain bath, but abundantly with a 60-grain.

An appreciable interval elapses after the mixing of the solutions on the plate before the crystals begin to form, and if the development of an image commences and goes on vigorously during the interval, the trouble may not appear. Furthermore, it will be seen from the results of experiments given above, that if we confine ourselves to the strength of solutions that general experience has shown to give the best and most uniform results with bromo-iodized collodion, there will be no danger of the formation of these pinholes; also that a limit is put to the strength of solutions we may wish to employ for the purpose of forcing up an image with a very short exposure, excepting what might be gained by heating the developer to increase the solubility of the sulphate of silver.

CENTENNIAL.

A FEW more words on this to keep it alive. When the Centennial Exhibition opens, if we find that photographers have taken no interest in it, we can at least comfort ourselves with the fact that we let them know about it. But we do not anticipate any such sad lack of interest. The display of photography there will be the grandest the world ever saw, and nearly every photographer in the United States will see it, besides many from abroad who have already told us they are coming over.

Let us then all be getting ready; now is the time to do that. The Centennial Commission will provide well for our art. Let our art provide well for the exhibition. More than this, they have already recognized the importance of our art in making the editor of this magazine a member of the Executive Committee of the Citizens' Centennial Committee, and this being the case, we pledge ourselves to look after the interests of photography and its votaries. We are heart and hand in the matter. Join vs.

What is most wanted now is subscriptions to the stock. The shares are \$10, one-fifth payable now. So far as we know, our craft have only taken ninety-nine shares. That is not a speck of what we should do. It is a good investment and will pay good interest. Pennsylvania photographers especially should look to this. Please let us know immediately how many shares we may put your name down for. The books are open at our office now.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

Indelicate Photographs.—Some excitement has recently been caused amongst dealers in photographs by prosecutions instituted by the Society for the Suppression of Vice against two or three dealers for the exposure and sale of photographs of actresses in the character costumes in which they regularly appear on the stage. In many cases these costumes cannot be described as ample, and many of the pictures are doubt-

less silly and vulgar in their lavish display of physical charms (?), but as they are tolerated on the stage in their flesh and blood form, few people would think them criminal in their photographic representation. The Society in question, with a laudable concern for the preservation of public decency, think that this pictorial display of scant drapery is demoralizing, and hence these prosecutions. The judge expressed his conviction that with but slight exception the photographs in question might be found in drawing-rooms throughout the kingdom; but as the accused parties plead guilty, they were simply bound over to appear to receive sentence whenever called upon, which is a legal mode I presume of saying that they had done nothing worthy of punishment. The shop-windows devoted to photographs were, however, suddenly trans-Lady Godiva and Mazeppa reformed. tired from public gaze, and the cards of swarms of half-draped ballet girls followed them. I don't know whether these vulgar portraits have inundated American cities to the same extent that they have prevailed on this side; if they have, some of your readers will probably think that, whilst it is somewhat startling to prosecute the venders of such things for indecency, it is a pity public taste cannot suppress pictures which degrade photography by their vulgarity.

Graduated Backgrounds.—A correspondent, Mr. J. S. Steadman, sends me details of a method which he employs with success in producing matt backgrounds in oil, with graduated tints. He says:

"The materials required for producing matt backgrounds in oil (if a slate color is chosen), are white lead ground in oil, black turpentine, linseed oil, and a little encaustic varnish; also one paint-brush and a large hog-hair brush for stippling purposes. The white lead must be broken or mixed up with turpentine to about the liquid state of ordinary paint, and afterwards strained, if not thought fine enough and free from all lumps. The operator will find, if he will try a little of this color on the background, or anything that he may choose (so that there be not too much suction), that the color will dry dead or flat in a few seconds. To obviate this, and to make the color work

free, a few drops of the linseed oil must be added according to the amount of color in use. But be careful not to use too much oil, or the color will remain glossy instead of flat; therefore I consider a trial or so necessary for inexperienced persons. Next add a small quantity of the varnish, about the same in proportion as the oil. It assists in drying and hardening the color. Having properly mixed up the white lead in the turpentine, oil, and varnish, commence to mix up the stain in another pot or pan with a little turpentine to dissolve the black.

"For a graduated background commence with the lightest part to be painted. Put sufficient of the black into the white lead already mixed up, to stain it to the strength required, remembering that flatting dries out two or three shades lighter when dry. Commence painting the lightest parts of the background, and keep adding the stain in small quantities, so making it darker till worked out to the deepest shade required, and occasionally stipple the color with a large hog-hair brush from the light to the dark parts, so keeping a uniform graduated effect as the paint is laid on, not allowing it to get stiff, as it would do before the whole background could be finished.

"If thought necessary, a little ultramarine blue may be added to enliven the color, or any other tints may be used in the same manner. Backgrounds that have not been previously painted will require sizing before painting with any ordinary size; or give it a coating of oil color previous to flatting it."

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues.

All remittances of back dues, and fees, and dues for new members should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Life Members.—No additions.

Debt Fund.—Are photographers not now in condition to help something towards the removal of the debt? The exhibitions cost so much each year that it would seem folly to undertake another one, unless the Executive Committee can be guaranteed that their efforts will be appreciated, and the Association kept free from debt. Make one brave effort, remit your dues, and help a little besides, and the thing will be done.

The Executive Committee meeting last held was too late for us to report this month.

Chicago. — The Chicago photographers seem determined to do their very best to insure the success of the coming N. P. A. Convention there. Arrangements are being pushed with all possible vigor, and there is no lack of earnestness in the matter. We are quite sure that we can rely on Chicago. Of their action, more elsewhere.

To Foreign Photographers. — The Sixth Annual Exhibition of the National Photographic Association will be held in Chicago, Ill., beginning Tuesday, July 14th, 1874. Foreign photographers are invited as usual to contribute to the display, and the usual large gold medals are awarded for the best exhibition of work from each foreign country. The arrangements are the same as last year. For further particulars, address the Permanent Secretary.

THE dealers and the photographers are not only beginning to work, but to give their money to help the Exhibition to success. The following is an example of the feeling that exists:

"We were presented a few days ago by Messrs. Mosher and Brand, a document, asking us to contribute towards the National Photographic Association Convention, to be held in July. We were glad to have an opportunity to do so, as we want it without fail to be held in our city the coming annual session, and registered ourselves for \$100 in the cause.

"RICE & THOMPSON."

WIPE out your dark-room with a wet cloth or sponge. This will often relieve you of annoying spots and markings that you may have tried in vain to discover the cause of.

SOCIETY GOSSIP.

PHILADELPHIA (Philada.), Jan. 7th.—Mr. Bell spoke in favorable terms of an instantaneous process by Mr. Duchochois, in which the pyroxylin is so treated as to remove all traces of nitro-glucose.

Mr. Partridge remarked, that in his hands, nitro-glucose had no effect whatever on emulsions.

Mr. Partridge exhibited a field camerabox for $4\frac{1}{4}$ x 7 plates, made by himself, and fitted with many ingenious improvements in respect to lightness, convenience, and neat adjustment of the parts.

On motion of Mr. Carbutt, it was resolved that a special meeting be called for Monday evening, January 12th, for an exhibition of slides by calcium light; a post-ponement rendered necessary by the fact of the non-delivery of the gas bags in time for this evening's meeting.

That meeting (12th) was held, and was a very pleasurable one.

NEW ENGLAND (Boston), Jan. 7th.— Mr. D. B. Vickery, of Haverhill, being called by the President, gave the following mode of preparing his negative cotton for stock:

Take three or four different makes of cotton, about sixteen ounces in all, mix them all together in an evaporating-dish, then pour in one gallon of water and one ounce liq. ammonia; stir the mass well. Then wash in several changes of water and finish by washing in alcohol. Then pick apart, and lay it on a clean glass shelf to dry; then put it in paper boxes. By preparing a lot of cotton in this manner you will always have a reliable stock on hand. One reason for my doing this is I have had some trouble in always getting the same quality of cotton for use; now I have a full stock on hand at all times.

No special business was transacted.

BUFFALO (Buffalo, N. Y.), Jan. 12th.—Mr. W. J. Baker began his interesting series of lectures on chemistry, which he will continue for a number of meetings, and for which the Association returned their thanks.

A very interesting paper was read from Mrs. Butler, on the negative bath. She said she never had any trouble with her bath, and had not boiled or sunned one for ten years. Her method of working was this: She always tested her chemicals each morning whether worked the day before or not, and if her bath failed to be in order she put kaolin in, and kept it in commotion about twenty minutes; when settled draw off with a siphon, and it is ready for using. She never covered her bath except while the plate was in. In this simple way she had kept it in order for the length of time mentioned.

PENNSYLVANIA (Philadelphia), January 19th.—The reports of the retiring Secretary and Treasurer were read and accepted, and the new officers duly installed.

The Committee on Medal made their report, awarding the prize to Henry F. Smith, of Mr. Rhoads's gallery, for the best cabinet portrait from an untouched negative. There were eight competitors, and the interest in the matter as well as the quality of the work showed a decided improvement over last month.

Mr. Wilson, in behalf of the Committee on Art Lectures, reported that he had had some correspondence with Prof. J. W. Wier, of Yale College. Two letters were read, giving the terms for a course of six lectures, with the subjects, and a synopsis of the leading points to be presented. Mr. Wilson spoke warmly in favor of the course, and called for some expression in reference to what the members were willing to do. A sufficient number subscribed for tickets to give the enterprise an encouraging aspect; and, on motion, the report was accepted, and the committee continued, with power to act in the matter as may be deemed expedient.

A letter was read from Mr. Shaw, refuting the claims of Mr. Clemons in reference to "Regnault's Chemistry" (extracts from which were read at the last meeting), by stating that Regnault's Chemistry had been in the courts years ago in his cases, and the same passages cited without avail. "The courts have invariably admitted the validity of the patent upon its merits, and notwithstanding that they have twice set the patent aside upon technical grounds, have always held that the invention was a patentable one; and the Patent Office, with all this

evidence and decision of the courts before them, have promptly renewed the patent as often as a renewal has been applied for." The object of Mr. Shaw's letter was to correct any erroneous impression that may have been made in the minds of photographers.

Mr. Schreiber spoke in high terms of Mr. Newell's wooden composition baths. He was using one, and found it all that could be desired.

An invitation from Mr. Moore to hold the next meeting at his rooms was accepted.

A vote of thanks was tendered Messrs. Gilbert Brothers for the use of their rooms this evening.

Mr. Trask wanted an understanding in reference to the medal pictures, whether they could be made from negatives already on hand, or whether they were to be made during the month of competition. It was decided that the negatives were to be made during the month.

Indiana (Indianapolis), Jan. 7th, 1874 — The developer being the subject of discussion for the evening, the articles in the January Philadelphia Photographer, by Messrs. Cross and Green, were read; they met the views of the members so thoroughly that it was thought but little could be added, and the discussion turned to the chemistry of the developer.

Mr. Dwyer recommended Mardoch's compound iron for short exposures and pictures of children.

Mr. Pendergrast was called on to read the monthly paper, which was interesting and instructive.

The chair was taken by Mr. Hesler, President of the Association. The minutes of the last meeting being read, the meeting proceeded to the election of officers for the ensuing year, which resulted as follows: President, G. A. Douglas; Vice-President, P. B. Greene; Second Vice-President, D. H. Cross; Treasurer, C. D. Mosher; Secretary, O. F. Weaver; Executive Committee, A. Hesler, E. D. Ormsby, and Joshua Smith.

Dr. Vogel's *Photographer's Reference Book* will be found very useful to "study up" at this season.

WRINKLES AND DODGES.

In reading the *Photographer*, I noticed the discussion on cleaning the printing-bath by burning alcohol. I tried it. The first dishful burned very nicely; but the second I could not light. I began to think, and remembered I lighted the first at the edge of the dish where I wiped the mouth of the alcohol bottle, and set it on fire, and it burned as readily as at first; whereas I could not light-it in the solution. I presume that was the trouble with friend Bingham when he tried so hard to light his bath and failed.

I congratulate you upon your safe return home, hoping you have had both a pleasant and profitable trip.

Your friend,

J. G. BARROWS.

Economy.—Have you tried the plan of keeping silvered paper between blotters that have been passed through a 30 grain solution of sal soda? If not try it, and you will be pleased; but to make it of any use the silvered paper must be placed between the blotters before it is fully dry from the silver solution. I silver enough at a time to last two or three weeks, and I make just as good prints with that silvered three weeks as that just silvered. The saving of material and time must be apparent to all who try it.

A. HESLER.

THE following are for use, if for no other than the waste-basket.

I made a 4.4 print for a respectable party last week. The proof was returned as not being satisfactory on account of its size, accompanied with the remark that they "supposed it was agoing to be blowed up." Your correspondent "riz," but nothing was "blowed" up.

Not long since I made a negative for a middle-aged dame from the Emerald Isle. The prints were promised on a certain day the following week. On the day appointed she made her appearance at my door, and made known her presence by several lusty raps. My wife being in the reception-room at the time answered the call, and was greeted with "Please mum, I want my

drawds." "Want what?" asked my wife.
"I want my drawds," was the reply. My
wife was nonplussed, and made for the
studio, and related to me the interview.
Now, what in the world does she want?
"Why, don't you know? She has had
her 'pictur' 'drawn,' and now wants the
'drawds."" G. H. S.

It is hard times, but it would be harder with me if I should be deprived of my monthly instalment of *Philadelphia Photographer*. I therefore remit.

G. H. SHERMAN.

I INCLOSE two little items, which, if you think they will be of service to anybody, you can make use of.

To save overprinted photographs, tone and fix in the usual way. Having taken out all sufficiently light, turn off the hypo fixing solution, and wash in one or two waters; then turn on to the prints a very strong, fresh solution of hyposulphite of soda in water quite warm; watch closely, and remove as soon as light enough. If very dark prints are to be bleached, don't overtone, as they will look more toned

after bleaching. Prints bleached in this way will come out as brilliant as when printed right, and fixed in the usual way. I have tried several formulæ, such as cyanide, ammonia, &c., but the prints were spoiled in tone and brilliancy, also the paper turned yellow.

To duplicate negatives by the wet process, place upon each corner of the negative to be duplicated a piece of cardboard sufficient to keep the coated and sensitized plate from touching against it.

Place this in the plate-holder, and upon it an ordinary wet collodion plate, and close as usual. Place the camera in good light, with two thicknesses of tissue-paper over front of lens; slide the bellows as close to lens as possible, and be able to cover the plate; expose about the ordinary time for a negative in the usual way; develop, and you get a nice sharp transparency; and from this you can make as many negatives as wished in the same manner, or enlargements can be made as with other transparencies.

IRVING SAUNDERS.

ALFRED CENTRE, N. Y.

Editor's Table.

OUR PRIZE OFFER !- Do not forget it.

MR. MOORE'S PRIZE FOR SOLAR NEGATIVES! Forget it not.

The Public Ledger Almanac for 1874, published by George W. Childs, Esq., publisher of the *Public Ledger*, Philadelphia, Pa., and given to all the subscribers to the latter, is not only a capital aimanac but contains a wonderful amount of statistical matter, municipal, state, and national, which every one will find most convenient and valuable to have at hand.

BIERSTADT'S VIEWS of Niagara, the Yosemite Valley, &c., are considered to be unexcelled, and a fine catalogue of them lies before us from Mr. Charles Bierstadt, Niagara Falls, N. Y. Mr. Bierstadt's advertisement will be found in proper place. He has recently returned from a tour in Egypt, Palestine, &c., with a stock of splendid negatives, of course. We wish him great success with them.

MOULTON'S PATENT PHOTOGRAPHIC WASHER strikes us as one of the most useful and practical things ever offered to the fraternity. It is so light, that instead of having to carry much water up several flights of stairs as many do, to wash their prints, you can carry washer and prints down stairs to the water, and in a few moments, it is claimed, give all the necessary washing. The prints are placed on a cylindrical network, which is made to revolve, and causes a stream of water to flow constantly over them. It must very thoroughly do the work.

ITALIAN PHOTOGRAPHY.—From Mr. Georges Sommer, Naples, we have received a number of card portraits indicating the state and progress of the art in beautiful Italy. They are specimens of the best Italian photography, and we take pleasure in announcing that we hope ere long to secure from Mr. Sommer an illustration for this journal.

Corrections in Mosaics for 1874 .- In Mr.

Hall's formula for varnish on page 49, read two pounds instead of one of common orange shellac. Also in Mr. J. C. Browne's article, page 121, last line, instead of "none are made," read "have one made,"

Removal.—Messrs. P. Smith & Co., Cincinnati, who have conducted the "Old Reliable" stock house at No. 36 W. Fifth Street since 1843, nearly ever since the birth of our art, have just removed to new quarters at No 121 W. Fifth Street, where they have a handsome store on the ground floor, 140 feet deep, and fine conveniences for their growing trade. We wish them all sorts of prosperity, for they deserve it.

THE awards of the Anthony prizes are to be made this month—we expect. We wonder who have had success in the matter?

More Honors.—Mr. Elbert Anderson has been honored by the American Institute with a Medal of Co-operation "for unretouched negatives." We congratulate him.

Mr. H. F. Smith, operator for Mr. W. H. Rhoads, and Mr. H. Krips, operator for Draper & Husted, have each taken a medal from the Pennsylvania Photographic Association for the best work. Let the "operators" shine. We like to see it, and we admire the employers who thus aid in their encouragement.

Pictures Received.—We have received some very pretty stereographs from L. E. Walker, Warsaw, N. Y. They show clean, careful chemical work, while the subjects are well chosen and skilfully managed. Of the views, numbers 907, 914, 917, 920, and 300 are very successful, being views of falls, cascades, and rapids in Enfield and Buttermilk Ravines. "Some Pleasing Studies for Our Young Folks," also, are good specimens of genre composition. "The First Shave," "Playing Grandma," "Little Jack Horner," and "Mush and Milk." are very creditable in this direction. Mr. Walker issues a neat catalogue of quite a large number of views published by him.

Several stereos from J. C. Potter, Elyria, Ohio, of winter scenery, are specimens of successful work in photographing snow scenes. Mr. Potter has chosen a time such as always makes us feel a desire to use the camera, and secure the fleeting beauties of the scene before a gust of wind or ray of sunshine should destroy it all. They illustrate a winter morning when the trees, fences, and every exposed object is heavily covered with sleet. In these views many of the trees have become so loaded that the branches have been broken down, while others are bend-

ing to the ground under the great weight accumulated on them.

We also have some very beautiful specimens of stereo work from Mr. J. P. Doremus, Paterson, N. J. A very interesting *trio* comprises Views of Passaic Falls, made with $3\frac{1}{2}$, 6, and $10\frac{1}{2}$ inch focus lenses, showing the effect of the various foci. The winter views are especially fine.

Specimens of portrait work have also been received from John Ferras, Markinch, Fife, Eng.; Well G. Singhi, Binghamton, N. Y.; J. C. Wilson, Cherokee, Iowa; H. B. Hillyer, Austin, Texas; Alexander Gardner, Washington, D. C.; J. M. Emery, Galva, Ill.; Irving Saunders, Alfred Centre, N. Y.; and W. A. Manville, Marshalltown, Iowa; all indicating progress in their work, and in their letters expressing a determination to improve. This is the spirit we like to see, and take pleasure in encouraging.

WHAT OUR SUBSCRIBERS SAY.

ELYRIA, OHIO, January 12th, 1874.

EDWARD L. WILSON, Esq.: Inclosed you will find post-office order for \$5 for the good old Photographer for one more year. It is hard times for me, as I am fitting up my new rooms, and I find a place to expend more money than I can get out of my business, and yet I cannot get along without the Photographer, and you cannot afford to send out such a valuable and indispensable exponent of our art (you see I consider photography an art, and why not?) without compensation. How rich and instructive has been the Photographer the past year, and I look for an improvement every year, and am in no way disappointed. It would be as reasonable for a firstclass (or fourth-class for that matter) lawyer to expect to practice law without reading up the decisions of the higher courts, as for a first or fourth-rate photographer to expect to keep up with the improvements without the Philadelphia Photographer.

I shall move into my new rooms the 1st of March, and I flatter myself that I shall appreciate them after operating in so small and inconvenient a room for nearly one year. I am putting into my new rooms all the conveniences of first-class rooms, and I am quite certain there will not be anything very much superior in the State. I have placed my light so that I can work it from the east, south, or west, as well as all the intermediate points, with distances sufficient for any kind of work. Room I do not lack in any department. Will send you some samples of work as soon as I occupy.

I have not done much at viewing since I burned out, as I lost my tent, and have not had the

time to get up another since. Will send you a few stereos made the past week, representing the effects of our recent sleet storm, which has done great injury to the shade and ornamental trees of our village.

Wishing the Photographer a successful year, I am respectfully, J. C. POTTER.

The Philadelphia Photographer, for January, Benerman & Wilson, Philadelphia. Edited by Edward L. Wilson.-This is in one respect a trade journal, but the organ of a trade, which, from its connection with chemistry and other arts, rises to the dignity of a science. Any one who follows its table of contents from month to month will be astonished at the rapidity with which improvements are being introduced and the readiness with which they are utilized. The frontispiece is a specimen of the perfection to which photography has been brought in Vienna. -The Age, Philadelphia.

ITEMS OF NEWS .-- Mr. N. A. Robinson, Hillsboro, Ill., a member of the National Photographic Association, died September 17th. He was sick some nine months.-The National Photographers' Chemical Company, Mr. Aug. Jennings, 352 Pearl Street, New York, general agent, has been formed to issue licenses, &c., under the Shaw patent .- New England photographers will be glad to know of the complete recovery of Mrs. F. S. Russell, of Boston, the well-known solar printer .- Mr. Jas. L. Forbes, late of Gurney's, is now with Mr. MacGregor, 255 and 257 Fulton Street, Brooklyn, N. Y .- Mr. Daniel Bendann has opened new galleries of photography at No. 26 North Charles Street, Baltimore .-Prices for printing by the Woodbury process may be had of Mr. J. Carbutt, superintendent, at the new works, No. 624 North Twenty-fourth Street, Philadelphia.-Mr. J. Lee Knight, Topeka, Kansas, has received twenty-nine first premiums at State Fairs for photographs - Messrs. Long & Smith, 520 Maine Street, Quincy, Ill., issue a neat little circular of instructions for using Long's bath-warmer, which they will send free to all applicants. They also act as agents for our publications.

PHOTOGRAPHIC MOSAICS. Edited by Edward L. Wilson. Benerman & Wilson, Philadelphia. -The editor of this little work seems determined that photography shall not be left without a historian to detail its rise and progress, its claims and the many improvements that are being constantly introduced. His labors in the Philadelphia Photographer, from month to month, are now supplemented by these Mosnics, for which he tells us there is a demand. If we may judge

from the list of contributors, he has already gathered around him a number of persons who sympathize with him in his enthusiasm with reference to true art. Many of the articles are technical, and, therefore, we judge of great interest to students as well as to practical operators .- The Age, Philadelphia.

THE January number of the Philadelphia Photographer begins the eleventh yearly volume of a monthly which is now recognized at home and abroad as one of the best, because the most practical of its class. Its frontispiece, this time, is a cabinet portrait by Fritz Luckhardt, Vienna, finely executed, but very indifferently set on a black and gilt mount, which kills the photograph. The most valuable article here is the first of "Views Abroad and Across," by Edward L. Wilson, the editor, in which, with the assistance of design and engraving, he relates his impressions of what he saw and learned in a recent visit to Europe-largely among the photographers, of course. Published by Benerman & Wilson, Philadelphia. - Press, Philadelphia.

MR. A. LESAGE, Dublin, Ireland, has undertaken a large historical composition picture of the members of the recent "Home-rule Conference." Over two hundred persons will be represented by the group, which will be copied down and prints offered for sale. No doubt this bit of enterprise will meet with a large reward.

THE FANCIERS' JOURNAL AND POULTRY EX-CHANGE is the title of a new weekly magazine published in Philadelphia by Joseph M. Wade, No. 39 North Ninth Street, at \$2.50 per year. It is neatly gotten up, and must be a success. The January number contains two photo-lithographs, from photographs by Messrs. Schreiber & Son. Some day we hope to see it illustrated by means of photographs from life.

MR. A. O. BURRILL and others will find the following a good receipt for making ferrotype varnish: White gum shellac dissolved in alcohol to a proper consistency. If too thick, add alcohol. Pound the gum fine in a piece of canvas before adding the alcohol. A dozen drops of ammonia to eight ounces of varnish improves it.

LOESCHER & PETSCH'S PICTURES .- Of these pictures Mr. C. D. Mosher, who has a set, says: CHICAGO, January 14th, 1874.

"I received the photographs to-day by express.

I think they are very excellent, and indispensable art studies for the photographer, and would most cheerfully recommend them to my brothers as a paying investment, and an attraction of real merit to their gallery of art."

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stockdealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23rd to secure insertion. Advertisers will please not ask us for recommendations. ** We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

FOR SALE .- An old established, well paying, first-class photograph gallery, centrally located, with newly furnished rooms, and splendid large north skylight. Terms, cash. Satisfactory rea-. sons for selling. Address

> Mrs. EMILIE BRECHT, 906 North Sixth Street, St. Louis, Mo.

Use Waymouth's Vignette Papers.

WANTED .- A first-rate negative retoucher, who thoroughly understands the art, and can come well recommended. Apply to

LON. BLACKBURN, Youngstown, O.

PHOTOGRAPH GALLERY FOR SALE at a bargain. Only one in town. Best light in southern Michigan. Good lenses (Ross and H. B. & H.) Plenty of water, large dark-room; in fact the gallery needs but to be seen to be appreciated. Will sell contents of gallery and give lease, or, if preferred, will dispose of the building. Address

Box 94, Jonesville, Hillsdale Co., Mich.

FOR SALE .- One of the most complete galleries, doing a business of four to five hundred dollars per month, located in a town of 10,000 inhabitants, in Illinois. For particulars, address "ARTIST,"

221 North Tenth Street, Philada., Pa.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition.

FOR SALE .- The long established photograph gallery, known as "Shaw's," for sale, at a great bargain, for cash. A north and south skylight combined, suitable for all sorts of weather; also, all modern improvements. Receipts running, even at these dull times, from one hundred and fifty to two hundred dollars per week, and can he brought up to much more than that by a smart, energetic man, who devotes all his time to the business. My reason for selling is, that I am in another line of business that requires all my time. None but cash customers need apply.

> WILLIAM SHAW, Apply to 137 Twenty-second St., Chicago, Ills.

FOR SALE .- The Bushby & Hart Gallery, Lynn, Mass. Operating-room 20 x 45; two lights, east and west; reception-room 30 x 30; south printing-room. Fourteen lenses, largest, mammoth; card negatives, 6½ x8½, two on a plate; twelve thousand plates registered, besides thousands of cabinets, 4-4, and larger negatives. None preserved except those ordered from. Receipts for 1873, \$10,500; for the past four years, \$43,-500. The net profits for the poorest year since 1867 would more than pay for the gallery. Apparatus, furniture, negatives, stationary fixtures, new \$650 parlor-grand piano, all valued at \$5500 and insured for \$4000, will be sold for \$4000. Rent \$450. Bushby has engaged to go to Europe in the spring; Hart has real estate in the west demanding his attention.

Robinson Photo. Trimmer. A new thing. \$3.50. See ad.

Wanted .- A complete outdoor stereoscopic outfit, with hand wagon, &c.

Also, for sale, cheap, or will give in exchange for the above, an extra 4-4 C. C. Harrison tube; a half size Harrison tube; also, a good 10 x 12 photo. press. For particulars, address

O. H. WILDEY,

Box 43, Skaneateles, Onon. Co., N. Y.

Wanten.-By first of April, 1874, an operator and poser, must be capable of doing first-class work; to one that will suit, steady employment and good salary is offered. Must come well recommended. Address, with photograph of self,

Brown & Higgins, Wheeling, W. Va.

FOR SALE .- A paying gallery in a growing town, on the Detroit and Bay City Railroad. Population 1500. Good country. No opposition within twenty miles around. Price \$350, cash down, with instruments. Come immediately as I mean business, to A. L. OAKLEY,

Vassar, Tuscola Co., Mich.

FOR SALE .- One of the most prosperous galleries in New York State. Doing the best business and the best work in the city where located. Very best reason given for selling. A bargain as to price will be given. Address

"NEW YORK,"

Office Philadelphia Photographer.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1873, \$4.50.

"THE subject of washing is one that demands the greatest care on the part of the photographer, and there is an almost positive certainty that unless it be done systematically and thoroughly, the prints, however carefully managed in other respects, will rapidly fade.

To work thoroughly the water must be used abundantly, and must be continually changed. If prints be thrown into a tank and a stream of running water be made to flow into it for several hours, a few prints may be satisfactorily washed, but if the number be large they will interfere with each other and the washing will be more or less imperfect."—Lea's Manual, page 295.

The Rapid Photo-Washer, instead of soaking the prints, applies the water in the form of spray, to both sides of the paper, with considerable force, at each revolution, or from 100 to 150 times per minute, thereby washing them thoroughly in a very few minutes, with but little water. Full particulars next month, or address L. V. Moulton, Beaver Dam, Wis.

Look out for something new next month. No more soaking of prints six hours! No more faded photographs! Prints are washed thoroughly in a few minutes by the Rapid Photo-Washer.

Found at last! Print washing revolutionized! Permanent prints made and time saved by the Rapid Photo-Washer. Full particulars next month, or address L. V. Moulton, Beaver Dam, Wis.

For Sale.—A gallery in a growing manufacturing town, with large country trade; the terminus of two railroads and the junction of four. I am getting the following prices for work: 8x10, \$7; 4x4, \$5; Imperial cards, \$8 per dozen; Victoria, \$6; C. D. V., \$4; and larger work in the same proportion. No competition in photographs. The gallery is well stocked with instruments, frames, albums, &c. North top and side light. Tenement on same floor. Rent reasonable, and duplicate orders from old negatives more than pay rent of the whole. Will be sold at a fair valuation. For further particulars, address

Care of Messrs. Benerman & Wilson.

THE TECHNOLOGIST, or Industrial Monthly, for 1874.-The January number of this standard journal, issued by the Industrial Publication Company, 176 Broadway, New York, has reached us, and, as usual, it is filled with valuable and interesting information. The table of contents gives a list of nearly fifty important articles, not including mere current items of information, of which there are seven or eight columns. Of these articles nineteen are illustrated, the iliustrations including two full-page engravings, printed in colors. In looking over its pages, one is struck with the clearness and simplicity which characterize the descriptions of new machines and processes; the earnestness and vigor of the editorials, and the spiciness of the news items. Those of our readers who are interested in industrial progress, ought by all means to examine this periodical, which may be obtained of any news agent, or direct from the publishers. It is the cheapest industrial journal now before the public, the subscription rate being only \$1.50 per year, or fifteen cents per single number, for a large, thirty-eight page magazine.

Wilson's Baltimore Stock Depot, 7 North Charles St. Try an order.

For Sale.—Frank Jewell's gallery, in Scranton, Pa. This establishment has been in successful operation for a little over three years, and has an extended and first-class reputation; is handsomely and conveniently fitted up, and arranged in the best manner for doing a successful business. Population of the town, 45,000, and no opposition. There are now 9000 negatives on hand, duplicate orders from which more than pay rent. Also, stock enough to run the place five or six months. Sold only to gratify the ambition of the present proprietor to get to a large city. Address for particulars, Frank Jewell,

Scranton, Pa.

Use Waymouth's Vignette Papers.

FOR SALE.—One of the finest galleries in the State of Indiana, furnished with all the latest improvements in instruments, accessories, &c. Rooms for residence attached. This gallery is situated in a city of over 12,000 inhabitants, and doing a splendid business. For particulars, apply to

P. Smith & Co.,

No. 121 West Fifth Street. Cincinnati, Ohio.

For Sale.—A photographic gallery in one of the most desirable business localities in the city of Philadelphia. For further particulars, address "Art,"

Office Philadelphia Photographer.

ELBERT ANDERSON'S BOOK AND MOSAICS 1873, \$4.50.

FOR SALE AT A BARGAIN. -\$1000 cash will buy my gallery in Athens, Ga. It is well equipped for first-class work, and enjoys the first-class patronage of the city and surrounding country. No first-class opposition. The city has a population of about 5000 inhabitants. The University of Georgia is situated there, with an average attendance of about 300 students; also, a female college and other high schools, all in a flourishing condition. It is the best opening for an enterprising man in the South. The gallery has been established eight years, and is located on the best street, and in the center of business, and opposite the University. The climate of Athens is unsurpassed, and it is considered the healthiest city in the State. My reason for selling is that my time is wholly taken up with my business in Atlanta.

I will sell for \$1000 cash; or, if the party prefers, \$600 cash, balance on time to suit, with security and ten per cent. interest. Parties meaning business will please address

C. W. Motes, Photographer,

Atlanta, Ga.

For Sale.—First-class photograph gallery. Best location, best light in town, handsome rooms, well furnished, established three years. Prices, \$5 per dozen cards. \$3 for 4-4. Without instruments, \$400. For particulars address

PHOTOGRAPHER, A. C.,

Kansas City, Mo.

JACOBY has a clear patent on his printingframe, and it does not infringe on the Mezzotint patent. Parties reporting the same to injure the sale of his frame had better look out. Any one buying them, can use them without fear of any one.

L. G. BIGELOW offers his services as an operator, from the present time until July 1st, 1874, at a fair remuneration. He guarantees first-class negatives. Address at 56 Henry Street, Detroit, Michigan.

VOIGTLANDER & SON LENSES.

Ryder's Art Gallery, 239 Superior St., Cleveland, Ohio, Dec. 18, 1872.

Benj. French & Co.

Dear Sirs:—Twenty-four years ago I bought and commenced using my first Voigtlander Lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good.

Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before.

Yours, truly,

J. F. RYDER.

Office of Wilson, Hood & Co.,

Dealers in Photographic Requisites, Frames,

Stereoscopes, and Views,

No. 822 ARCH STREET,

PHILADELPHIA, September 20, 1873.

We have pleasure of announcing that we have in stock a small lot of Albumen Paper of the celebrated manufacture of the Albion Albumenizing Co., of London, England.

Following are colors, quality, and price:

White	Saxe,per	r∈am,	\$34	00
Blue		4.6	34	00
Pink	"	6.6	34	00
White	Rives,	4.6	33	00
Blue	"	6.6	33	00
Pink	··_ ·····	"	33	00

We have had it well tried and can advise our customers to purchase.

Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

WAYMOUTH'S VIGNETTE PAPERS.

"I am using and like them very much thus far."—A. MARSHALL, Boston.

"A sensible improvement."—GEO. S. COOK, Charleston, S. C.

STEREOSCOPIC NEGATIVES WANTED.—Parties having for sale new, unused, stereo. negatives of attractive American scenery, will oblige us by sending a list of them and the prices.

BENERMAN & WILSON, Phila.

SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

We cannot have letters directed to our care, unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

By one who retouches. Understands printing, toning, and the general business of a photograph gallery. Address "Artist," 221 North Tenth Street, Philadelphia, Pa.

By a respectable young man, in some house where he will have a chance to learn the business. Has good character and references. Address A. Banks, 1169 South Eleventh Street, Philadelphia, Pa.

By a gentleman artist, late of Sarony, with fourteen years' experience in photography, acquired in the first houses of Paris, London, and New York. Address Ch. Hasselman, 624 Capp street, between Twenty-first and Twenty-second streets, San Francisco, Cal.

As a good negative retoucher and finishing artist. Address Miss E. Lawrence, 55 Ross Street, Brooklyn, E. D., Long Island, N. Y.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1873, \$4.50.

As operator. Address, stating price paid per week, Box 103, Union City, Pa.

By a young man as printer and toner or operator's assistant. Has had six years' experience in first-class galleries. Address Ed. E. Bliss, 147 Adams Avenue, Detroit. Mich.

By a lady as retoucher. Can also tint, spot out, and print. Address E. G., 2057 Third Avenue, New York.

By an operator or printer of five years' experience. Will either rent or take charge of room. West preferred. Address Operator, Post Office Drawer 67, Janesville, Wis.

As assistant operator or printer in some good gallery; or would take a small gallery for a share or a salary. Please address M. D. Boardman, Plymouth, Richland Co., Ohio.

By a young man. Seven years' practice at printing. Best of reference. Box 186, Wilmington, N. C.

As retoucher, by a young man of good habits, with an experience of several years. References: J. A. Scholten, A. J. Fox, St. Louis. Address C. A. Harcep, care of Scholten's Gallery, St. Louis, Mo.

To attend a photograph gallery in Philadelphia or New York. Can retouch negatives first class. Please state terms in answering. Miss M. T., care Mr. L. Dubernet, 15 Amity Street, New York City.

By a first-class operator as positionist or dark room man. Can give the best of reference. Address P. O. Box 71, Chicago, Ill.

By an A No. 1 operator, at present engaged in one of the leading galleries in New York. Salary, \$35 to \$45 per week. Or would take partnership interest in gallery in lieu of his services. Address Felix Meritas, care "Walter," Pianos, 338 East Fourteenth Street, New York City.

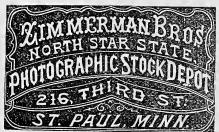
As a general operator or printer. Single man, of steady moral habits. Can retouch. Address John Ferren, Rockville, Park Co., Ind.

By a first-class operator. A No. 1 negatives guaranteed. Address Artist, care Otto Miehle, 467 Division Street, Chicago, Ill.

As retoucher, by a lady who has spent several years as a student in art schools. Address A. E. S., Elmira, N. Y.

The German Photographer's Society, of New York, have established at Chas. Cooper & Co.'s, 150 Chatham Street, New York, a mutual labor exchange office. Employers in need of help, and employees in want of situations, will please send their names, directions, and full particulars to the place above, where each case will be promptly attended to, free of charge.

EDWARD BOETTCHER, Cor. Secretary.



By a young man of over two years' experience, as operator or general assistant in a strictly first-class gallery. Address B. S. Williams, Tunkhannock, Wyoming Co., Pa.

By a young man of good habits, in a good gallery, as assistant. Has had a year's experience in the photographic art. Address Photo, Fulton, Whiteside Co., Ill.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. J. W. Black, President; J. H. Hallenbeck, Secretary, Boston.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N. Y.—Second Monday in each month. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary, Brooklyn.

Maryland Photographic Association, Baltrmore.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N. H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Society of Philadelphia.—At No. 520 Walnut Street, third floor, first Wednesday of each month. J. C. Browne, President; E. Wallace, Jr., Secretary, 1130 Spruce Street.

Pennsylvania Photographic Association, Philadelphia.—At the galleries of the members. H. H. Phillips, President; R. J. Chute, Secretary, Office Philadelphia Photographer.

Photographic Association of the District of Columbia, Washington, D. C.—E. J. Pullman, President; C. M. Bell, Secretary, 459 Pennsylvania Ave, Washington. First Tuesday, monthly.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State Street.

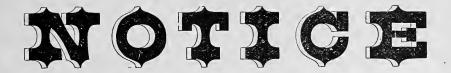
Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

Photographic Association of Western Illinois.— At Galesburg, first Wednesday of October, January, April, and July. S. T. Bryan, President; J. F. Barker, Secretary, Galesburg.

Chicago Photographic Institute, Chicago.— 1st Monday, monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, Sec'y.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1873, \$4.50.



TO PHOTOGRAPHERS!

BENERMAN & WILSON, Photo. Publishers,

Beg Photographers to remember that their

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ESTABLISHED BY A PRACTICAL PHOTOGRAPHER.

As the name implies this is a medium to facilitate intercourse amongst Photographers, and through which they can buy, sell, or exchange, anything and everything of value in the line of photographic apparatus.

The benefit derived from an institution of this kind will be appreciated by every intelligent and

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It is a well known fact that every gallery has more or less of dead stock on hand; stock possessing value, but still useless to the owner.

Heretofore no means has existed to dispose of these goods satisfactorily, and consequently they have been suffered to lie around and to be kicked about until rendered worthless.

This can be obviated in the future, as you are now enabled to dispose of your surplus stock, and replace it with something you need.

The great advantage you gain by selling through us is that your goods will be continuolly advertised in the different Photographic publications, and in our Monthly Catalogue until disposed of.

Now is the time to send in your goods, as we have applications on our books for all kinds of implements, such as Cameras, Tubes, Stands, Baths, Dishes, &c., &c. Every commission entrusted to us will be carefully attended to.

For the transaction of all business we have adopted the following

RULES AND RECULATIONS.

1st.—Photographic Apparatus of every description will be received and sold or exchanged.

- 2nd .- When goods are disposed of the proceeds will be immediately remitted to the consignee, deducting our commission.
- 3d .- On all sales under Fifty Dollars, our commission will be 20 per cent, above Fifty, 15 per cent. Special rates to those who wish to dispose of entire outfits.

4th. - Freight and Expressage must be paid for by the consignee.

- 5th .- Every consignment should be accompanied with the lowest cash price, and also a letter of instruction which will be our guide in disposing of the goods.
- 6th.—A catalogue of goods on hand will be published monthly, and sent free to any address.

Circulars and further information sent on application.

All goods and communications should be addressed to

PHOTOGRAPHERS' EXCHANGE,

No. 149 Chicago Avenue,

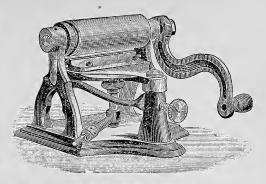
CHICAGO.

L. W. FELT, Proprietor.

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GIVING A BEAUTIFUL FINISH AND GLOSS FAR SUPERIOR TO ANYTHING YET INVENTED FOR THAT PURPOSE.

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The Enameler is sold by all stockdealers.

See outside of cover.

Gives an Unequalled Finish to Photographic Prints.

Setting Price List: Card size, 4-inch roller, \$20; Cabinet size, 6-inch roller, \$30; Extra Cabinet size, 9-inch roller, \$40, 14-inch roller, \$50, and 18-inch roller, \$80.

net size, 9-inch roller, \$40, 14-inch roller, \$50, and 18-inch roller, \$50.

On receipt of draft or postal order for the amount of the purchase, and not otherwise (thereby saving us return express charges), we will allow a discount of five per cent. from the price list, and ship to the party ordering by return express. Each machine, before shipped, will pass the critical inspection of Mr. E. R. Weston, the inventor, thereby assuring a perfect instrument in all cases. All necessary materials, with full directions for using same, will accompany each press.

WESTON'S BURNISHER PATENT.—Our attention having been called to the fact that certain parties are attempting to introduce burnishing machines, clearly infringing on the Weston patent, we have the aution all parties against using or selling such machines by subspective name the name has called

hereby caution all parties against using or selling such machines, by whatever name they may be called, as we shall prosecute all concerned in any way with such infringements.

OPINION ON THE WESTON PATENT.—For the benefit of those interested we publish the following:

BANGOR, ME., Nov. 17th, 1873.

Hon. J. P. Bass .- Sir :- The question submitted to me, as to whether the stoppage of one roll of the Excelsior Roll Press, and its use in polishing photographs, either with or without heat, would in-fringe the Weston reissued patent of February, 1873, for a burnisher for photographs, &c., has received my attention. Basing my opinion on the specification and claims of said reissue, which is prima facts valid, I do not hesitate to pronounce said alteration and use an infringement of each, and, if heat is used, all the claims.

Is used, all the claims.

Stopping one roll of said press and feeding the card over it by revolving the other, polishing it in its passage, is covered by the first claim of the reissue. It produces a "burnishing machine by which a surface is given to the article to be polished, by feeding it under pressure over the surface of a stationary burnisher," and such machine is what Weston claims. Stopping the roll converts it into a "stationary burnisher"—as far as its operation on the picture is concerned—its shape being a matter of no consequence, and the combination of this stopped-roll with the revolving one is substantially the combination of the feed-roll and stationary burnisher set forth in the second claim of the reissue. Heating the stationary roll introduces into the combination the elements which Weston's third claim is based upon stationary roll introduces into the combination the elements which Weston's third claim is based upon. I consider the device as simply a colorable variation of Weston's machine, performing substantially the same work in substantially the same way, and should advise the prosecution of infringing parties, having confidence in the validity of the patent, and believing that it will be sustained by the courts.

Very respectfully,

WILLIAM FRANKLIN SEAVEY,

Counsellor at Law and in Patent Cases.

All photographers are cautioned to use no machines infringing the principle of the "Weston Burnisher," to which letters patent have been granted in the United States and Canadas, and also for England, Prussia, Anstria, France, and Belgium.

Mr. WM. BOLLARD, of Brockville, Ontario, is our agent for Ontario and Quebec; also has

the right to sell in all the Provinces.

All orders and communications addressed to the subscribers will receive prompt attention.

J. P. BASS & CO., Bangor, Me.

THE

NATIONAL PHOTOGRAPHERS' CHEMICAL COMPANY,

ORGANIZED IN THE CITY OF NEW YORK, JANUARY 6, 1874.

WM. S. PENDLETON, President.

JOSEPH N. MADDOX, Secretary.

WM. S. PENDLETON, AUGUSTUS JENNINGS, CHAS. H. WILLIAMSON, CHAS. K. BILL, J. N. MADDOX.

AUGUSTUS JENNINGS, Appointed Superintendent and General Agent.

OFFICE, 352 PEARL STREET, NEW YORK.

The purposes for which said corporation is formed are the following, viz: The purchase of Shaw's Patent Process for recovering silver and gold from spent photographic solutions and washings, refining of gold and silver, and to transact business generally as manufacturing chemists, to buy and sell, and deal in goods necessary and convenient for the prosecution of said business.

TO PHOTOGRAPHERS:

The NATIONAL PHOTOGRAPHERS' CHEMICAL COMPANY, having secured for a limited time the privilege of purchasing and the right to issue licenses for the use of Shaw's Patent Process for recovering silver and gold from spent photographic solutions and washings, would now call the attention of every photographer to the exceedingly favorable terms which we have secured from Mr. Shaw, and would invite your cooperation and assistance in securing the same permanently within the specified time. It is admitted by every one who has investigated the subject that about one-half of all the silver used in making photographic prints ultimately goes into the hyposulphite fixing solutions, and that threefourths of all the silver used in making negatives and ferrotypes is to be found in the hypo and cyanide solutions used in fixing such negatives and ferrotypes, and that there is no other known method by which the silver can be so surely and economically recovered from these fixing solutions as it can be by precipitation with sulphuret of potassium; and, as this method of recovering it is claimed by Mr.

Shaw, an interest in his patent is greatly to the advantage of every photographer.

You are now solicited to subscribe to the stock of said Company, and secure the use of this patent, together with the right and privilege of saving all of your waste by its use, and having it reduced at ten per cent. of the amount recovered. No photographer can ask for terms more reasonable, and those who neglect to improve this opportunity will have no one but themselves to blame if at some time

hereafter they are compelled to accept on less favorable terms.

Notice.—The undersigned having sold his Patent Process for Recovering Silver and Gold from spent Photographic Solutions and Washings to the "National Photographers' Chemical Company," of New York City, would inform photographers that they now have the opportunity of securing to themselves the exclusive control of said Patent. The entire amount of stops is now offered to photographers, and will be held subject to their subscription until the first of August next. After that date I reserve

to myself the right to take the balance of said stock not then subscribed for.

I have made arrangements with said "National Photographers' Chemical Company" to receive at par in payment for subscription to their stock any and all stock of the Shaw & Wilcox Co., which may be held and presented for that purpose by photographers who have heretofore subscribed and paid for said stock, the same to be presented for exchange prior to the first day of August next. I would also state that I am authorized by said Shaw & Wilcox Company to pay all legal, equitable and just claims held by any one against said Company, provided that parties holding such claims will allow as an offset such legal, equitable and just claims as said Company may have against them.

Very respectfully,

J. SHAW, Agent for the Shaw & Wilcox Company, BRIDGEPORT, CONN., January 13, 1874.

AUGUSTUS JENNINGS, General Agent,

ON BEHALF OF THE NATIONAL PHOTOGRAPHERS' CHEMICAL COMPANY,

No. 352 Pearl Street, New York City.

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We feel much pleasure in announcing that this annual contains nearly one hundred original articles contributed by the most distinguished gentleman connected with the photographic art, besides a careful resume of all the novelties and improvements in photography during the year.

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DICTIONARY:

An Alphabetically arranged collection of practically important hints on the construction of the Gallery; selection and trial of lenses and chemicals; approved formulæ for the different photographic processes; tables of weights and measures; rules for avoiding failure, etc., etc., for

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Extract from the Minutes of the Chicago Photographic Association, Dec. 3.

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WAYMOUTH'S



(See opposite page.)

TESTIMONIALS:

"Waymouth's Improved Vignette Papers I have tried, and they are just what I have been want-

"Waymouth's Improved Vignette Papers I have they, and they are just that I have they are just the permitted of the gradation already very good, being modified easily to suit the negative. This, I take it, is a point of great importance. This lithographed mask on transparent paper will, I think, be found a useful adjunct in vignetting."—G. Wharton Simpson, M.A., F.S.A.

"From a trial made, we are enabled to say that they answer exceedingly well; and they are certain and they are certain they are they well deserve."—British Journal of Photography.

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(DESIGNS COPYRIGHTED.)

of all pictures, the ### is the most artistic,

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

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THEY ARE NOT CLUMSY; DO NOT BREAK; ARE ALWAYS READY; COST BUT LITTLE, AND ARE EASY OF APPLICATION TO ANY NEGATIVE.

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They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

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" 16, 17, and 18, '		"	Half " "	**	"	1 25

(SEE OPPOSITE PAGE.)

When ordering, state the number and color you want. The Waymouth Vignette Papers are an English invention, and are becoming so universally used in Europe that we have pleasure in introducing them to our patrons. We own the copyright.

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BY DR. VOGEL.

EVERY photographer has felt the need of a work to which he could refer quickly and find such information as comes up in his daily practice, and yet with which he is not entirely familiar, such as optical and chemical terms, chemical formulæ and equivalents, tables of weights and measures, and for the changing of the old system of the same to the decimal; varied photo-formulæ in brief; hints useful in cases of emergency and failure, together with the thousand and one things which come up daily—in fact a dictionary in brief. But until now that want has been unsupplied, and much time has had to be taken in searching through volumes of magazines and books to find out information that a ready reference book would give in a moment.

Several thousand copies of the German edition have been sold. The

American edition, revised and rearranged, is now ready.

See reviews in the photographic magazines and other advertisements.

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Enclose stamp for samples.

LAFAYETTE W. SEAVEY,

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No. 69.

A moonlight. New and a decided novelty.

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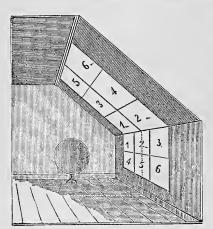
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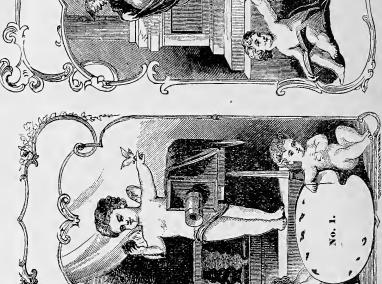
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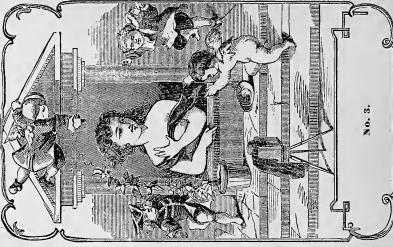
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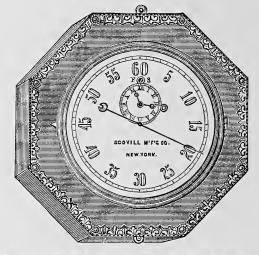
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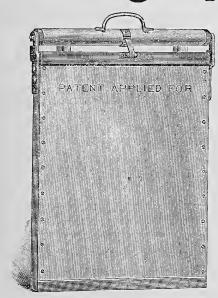
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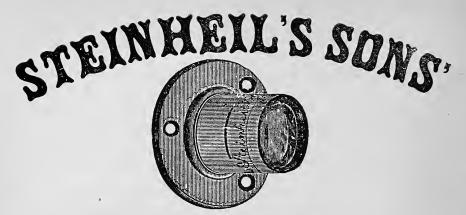
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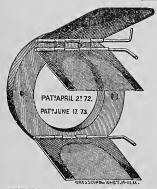
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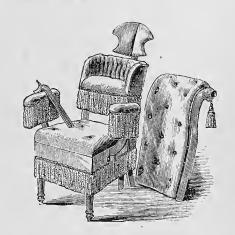
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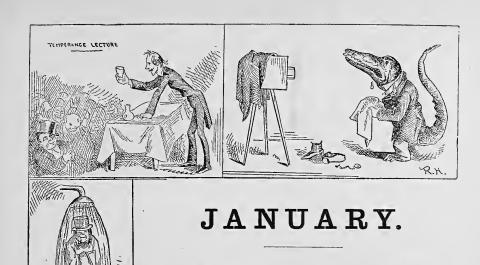
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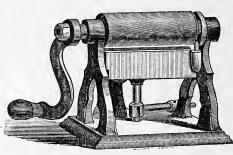
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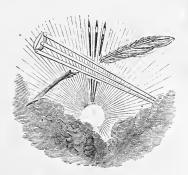
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THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

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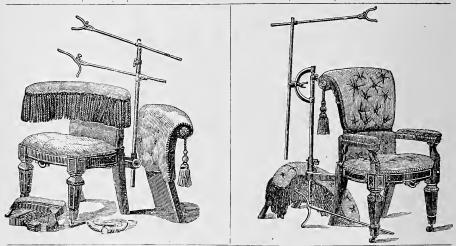
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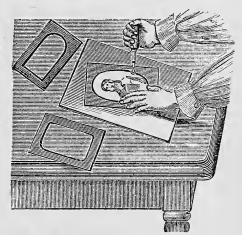
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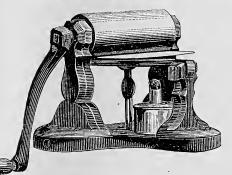
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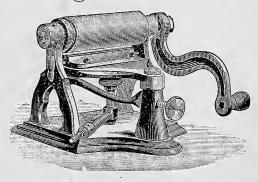
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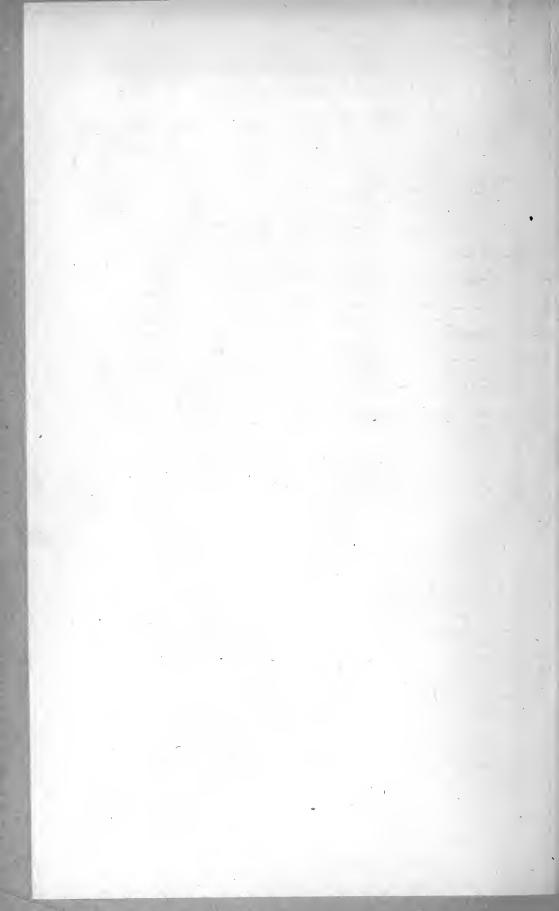
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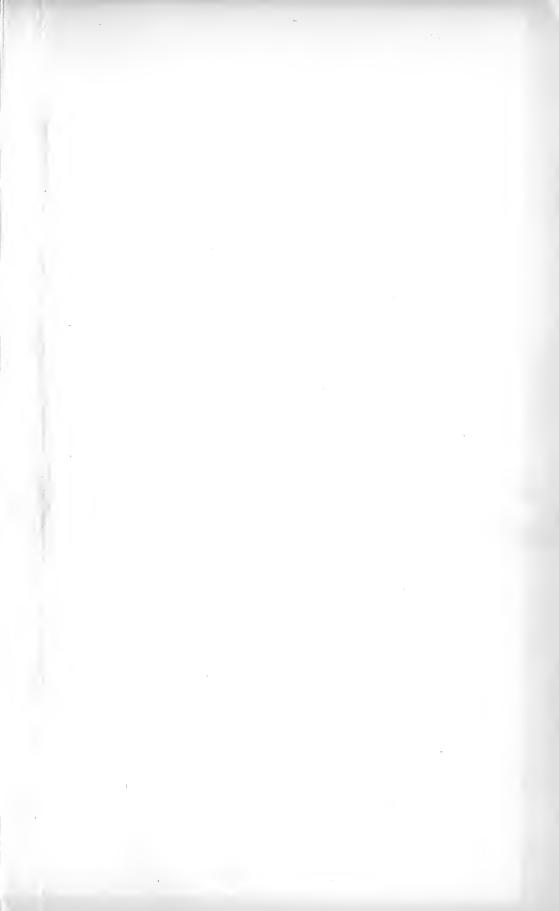
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MARCH, 1874.

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OUR PRIZE OFFER.

Don't forget this. Judging from some pictures already forwarded to us, we are quite sure that the competition this year will be fiercer than ever, and that it will be no easy thing to get the medal, for the competing pictures will be more excellent than any ever before offered. Send the best you can make, and let the competition be hearty, so that whoever gets the medal will have to earn it, and the one who gets it will receive the more credit with it.

The rules will be the same as in former cases, and a set of prints from the competing negatives will be sent to each worthy competitor. April 15th is the limit.

THE WORLD MOVES.

REFERRING to our splendid offer on the front page of our last number, we would say that the demand for gratis copies of the Photographic World, more than equals our expectations, and is greater than at any previous time. We urge our readers to come in for their share promptly, as there is a probability of the whole lot being taken up by the prescribed time, March 18th.

Quite a number have been so much pleased with the copies we have given them that they write back that they "must have all the rest." Of course, we are glad to have

such appreciative responses to our "extraordinary generosity," and to save inquiry, we would state, for the information of those interested, viz.: 1. There are two volumes, twenty-four numbers, of the World. 2. They were originally published at \$5 per volume. 3. The price was reduced to \$3 per volume. 4. Our present terms are, six copies our selection, \$0.00. Balance of two volumes (18 copies), \$4.50.

These are our lowest, and best, and only terms; and, rather than part with them on any other, we should feel justified in grinding them up into paper for the *Philadelphia Photographer*. We will do this, however—if any of our subscribers think they would like the two volumes, but cannot afford the investment now—we will send them the six gratis copies and reserve the rest for awhile, until they can pay for them.

THE FINANCIAL CONDITION OF THE N. P. A.

Those of our readers who are not members of the National Photographic Association will pardon our frequent allusion to this matter. We suppose quite as many of them are members as are not, so we must strive to interest all parties.

During the past month, the Executive Committee have been examining into the status of the Association's finances, and they find about \$4000 debt to pay, and over \$3900 due from the members for dues, so that if the dues were paid, and a slight "lift" from the wealthier members given, the Association would soon be beyond all fear of another crisis. That the members don't pay their dues is very strange. With some it is neglect, but doubtless with the majority they don't know just how much they are behindhand. For the information of all, let us say that until last June the dues were \$2 a year. At Buffalo, those attending the convention paid their dues in advance from June, 1873, to June, 1874, but during the convention, next to the last day, the dues were raised to \$4 per annum, thus making \$2 more for those who had already paid, to pay, and \$4 due by those who had not yet paid anything. Many think because they have paid the \$2 at Buffalo that they should not pay more, but the necessities of the Association compelled the rise asked for, and all good members should pay it if they wish the Association to go on. February, by order of the Executive Committee, the Secretary has sent a postal card to each one, asking for the balances due the treasury. A few are responding cheerfully, and contributing towards the debt too, and declaring that "the debt is our debt and we must pay it;" also saying that "the Association must not go down." This looks very cheerful, and we are glad to see it, for we believe it will be the greatest mistake the photographers of the United States ever made to let this Association collapse. It is not only doing great good as an educational institution by means of its annual exhibitions (which it is true many of you cannot attend, but the good it does is diffused by those who do, and thus you are all benefited), but it is a most powerful preventive of evil in the way of the hungry sharks, who used to infest the land with their secret processes and barefaced swindles. pare the state of affairs five years ago with what it is now, and see if it would better your condition to go back. If it would, then by all means let us retrace our steps.

Now, a word or two about why the Association is in debt, and why it has been in debt so long and so much. The great cause is the conventions. At none of them did

the public and the dues received from new members ever pay the expenses, except at Cleveland. Each year there has been a larger balance for the Executive Committee to make up by loan, and they are unwilling to do this longer, when they find the members themselves do not pay their dues. We are quite sure that if all pay up now, and remove the debt and continue to pay hereafter, that the Association will have more than enough income to support it, exhibitions, conventions, and all, handsomely.

Burnt-in Enamel Photographs.

WE would not be surprised if many of our readers should ask, what are "Burntin Enamel Photographs?" because it is a long time since anything concerning such pictures has appeared in these pages. To avoid such a query, we will first state, briefly, what they are, namely, photographs which are by various methods made upon or transferred to white enamelled plates of copper, or of white porcelain only, then submitted to the action of heat in a muffle and burned into the surface of the enamel, so that the picture is really a portion of the plate, is not affected by any of the elements, and is as absolutely permanent as anything photographic can ever be expected to be.

For years such pictures have been made, by as many different methods, but as a general thing the results, in portraiture, have not been what they should be. It was comparatively easy to make them upon chinaware, for in such cases slight blemishes and coarseness were not so much noticed. But in portraiture we must have the most delicate softness, spotlessness, and purity of tone. As each new claimant came forward he would assert the excellencies of "his own modification;" but while some good results were shown, it was acknowledged that they were preceded by very many failures. M. Camarsac and one or two others seemed to secure uniform results with ease, but they kept their process an absolute secret, and would not communicate it to any one for any price.

MM. Tessie du Mothay and Marechal exhibited some beautiful examples at the Paris Exposition, in 1867, for which they

were awarded a medal. They called them "vitrified photographs." A plate was thoroughly cleaned and coated with a solution of india-rubber dissolved in benzole and mixed with collodion. When the film was dry, it was coated with iodized collodion, sensitized, exposed, developed, and fixed in the ordinary way. Then the image was intensified strongly and put into a bath of gold and platinum, after which, washing, fixing with cyanide, and varnishing followed. The vitrification came next. The plate was put into a muffle-furnace and the organic matter burned out, leaving only the metals. Afterwards it was covered with a flux, and again placed in the muffle until the desired glaze was produced.

But their process had drawbacks which prevented its general practice.

Some of the finest results we have seen, in various colors, but on chinaware, were by Mr. J. Leth, of Vienna, and were shown at one or two of our National Photographic Association's exhibitions. At Vienna, we saw some magnificent specimens by Mr. Leth. His method was to make a positive, float the film from it upon the convex surface of the enamelled plate, to which gentle rubbing makes it adhere closely, the plate having first been covered with a mixture of—

Distilled Water,			100	grammes
Bichromate of P	otash	, .	6	63
Gum Arabic,			5	6.6
Honey, .			1	6.6
White Sugar,			1	6 6

The enamel is then exposed to sunlight, for one or two minutes, and when taken to the dark-room and the film removed an image is found printed upon the plate. Powdered pigments, varying in color, according to the color of picture desired, are now dusted over the picture, and adhere to those parts not acted upon by the light. The plate is subsequently immersed in a solution of weak sulphuric acid and alcohol, in order to remove any traces of the bichromate, then washed with plenty of water, and when dry it is ready for the furnace. After the burning-in, the glaze is applied the same as in the other process.

But none of these processes were satisfac-

tory, or easy, or certain in their results, and therefore the progress of burnt-in photography, in portraiture at least, has been but very slow. A brighter day is dawning, however, and an easy, workable, and certain method is at our hands, if we choose to take it up. A number of our readers will remember having seen, at the exhibitions of St. Louis and Buffalo, several perfect gems in this line, by Messrs. Robinson & Cherrill. Of course we lost no time in asking them to make known their method. Their answer was, "No! these are only the best results of our experiments. We have not mastered the process vet. Further experiment will bring it, and when that time comes you shall know." When visiting these gentlemen, in October, we found them still laboring hard, and they declared that they had now overcome every obstacle, and to prove it, without telling us the nature of the ingredients used, made several pictures from beginning to end in our presence, and we are free to say that we were surprised and delighted at the ease with which they could be produced.

Their method is, briefly, to make a positive, float it from the glass in water; tone and fix it; transfer it to the convex enamelled plate, burn it in, glaze it, and it is ready for delivery-for brooches, breastpins, girdles, cases, lockets, and what not-wherever you choose to place a beautiful, permanent photograph. Messrs. Robinson & Cherrill assured us that there was a great demand for them, and, in fact, quite an excitement over them. We feel sure that any American photographer who would introduce them in connection with his business would make them pay well; for old negatives may be used and made profitable, while now they are valueless. We endeavored to get from the gentlemen named permission to communicate the details of their method to our readers. Their answer was, that they were renowned for the alacrity with which they had always communicated to their coworkers everything they knew, but that in this instance, besides a couple of years of time-taking experiment, they had expended several hundred pounds in perfecting the process, and they believed they were not wrong in asking photographers who desired

to know all the details to reimburse them. They did not propose to communicate their method to any one in England, but in America, if enough photographers would club together to pay them \$5000, they would furnish each member of the club with the fullest details, and from time to time with any improvements they make, should they see room to make any. Then, if the club saw fit to make the thing public, they could do so, or it could remain a protected secret with themselves. Those interested, therefore, will please refer to the advertisement on the subject.

While we wish that everybody might have this process, as that cannot be, having seen it worked, and witnessed its simplicity and ease and certainty, we unhesitatingly recommend it, hoping that enough gentlemen will agree together to buy the secret and then make it public. Fifty photographers, at \$100 each, would do the work.

Our readers know our record in such matters and need no assurance that we would not commend this thing did we not personally know the gentlemen named, and that they have placed the fraternity under very many obligations for useful things, given freely, and had we not seen them work the thing, from the making of the positive to the glazing and finishing of the picture. Moreover, we have the pictures we saw made at our office, where all are welcome to see them.

We give our readers an example of another variety of work this month, made by Messrs. Robinson & Cherrill, in which they also excel, together with the details of their process.

Both classes of pictures may be made profitable by any enterprising photographer, we are quite sure.

This month we believe we issue an unusually attractive number. At least we have striven to make it so. We intend that our magazine shall get better and better each month. Please try to get us some more subscribers. The six premium pictures are as beautiful as ever.

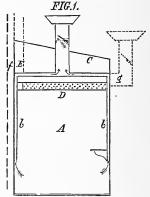
THINGS NEW AND OLD.

BY R. J. CHUTE.

VENTILATING THE DARK-ROOM (continued).

This question of ventilation is one that has puzzled so many much wiser heads than mine, that I am not oversanguine in any recommendations I may make.

A small room, however, such as most of us use for the chemical operations connected with the making of negatives in the gallery, presents no such difficulties as the ventilation of the English Houses of Parliament, or the Halls of Congress at Washington, yet it is of no less importance to the occupant, and the best possible means that can be devised should be adopted to give every dark-room a thor-



ough ventilation. It requires no elaborate system. The operations of natural laws in reference to the movements of currents of air are very simple, and it is only necessary that these should be observed to secure the desired result. It is well known that cold air is heavier than warm; also, most of the foul vapors and impure gases fall and mingle with the cold air, while the warm, rarefied air rises. It is well known, also, that heat is one of the best of disinfectants.

Now we have only to conform to these operations of natural laws to secure the end we desire. In the accompanying diagrams Fig. 1 shows the plan I described in the last number of this journal. A is the dark-room, represented as about 8 x 10 or 12 feet, and 10 feet high; the diagram represents the width and height. b b are ventilators on each side, passing up the walls, and uniting in the centre of the ceiling. If a large room, the ventilators had better be

constructed on both sides; but if the room be small, it would be sufficient on one side Fig. 2 is a section of the side of the room, showing the ventilator b extending about 2 feet in width on the wall, and a supposed flue, f, against which it is placed. The sheathing of the ventilator on the ceiling should be of thin material (a thin board sheathing, painted black, would be a good conductor of heat), so that the advantage of



its broad surface the heat of the

room, which will tend to give an upward current at all times. The diagram, Fig. 1, supposes the dark-room to be near the roof, as represented at C. Should there be a flue or funnel at one side, as at f, then the ventilator, instead of passing out at the centre, might pass out as at e. But should the room be so situated that there could be no outlet through the ceiling, then place the ventilator as represented by the dotted lines

The fresh air supply is from the perforated pipe D, which should run on two or three sides of the room, and have a damper, to open or close, near the outer end. If connected with the outer air, which would probably be best, a fine wire gauze should be placed over the mouth. The perforations should be made so as to throw the air out horizontally into the room. The advantage of placing the supply-pipe at the top of the room will, I think, be readily seen. The cool air, as it enters the room from two or three sides, will immediately fall and cause a change in the air throughout the room; whereas, if the air were admitted at the bottom, or an open door or window depended upon for a supply, it would pass immediately into the ventilators, and the air in the upper part of the



room scarcely be disturbed at all. Moreover, this arrangement will, I think, secure immunity from dust in a great measure. Though dust is sometimes raised, yet if left to itself, it nat-

urally falls, and with this arrangement it

will be assisted in falling. Contrary to the system of ventilating at the top, which always tends to keep the dust whirling, this method carries it down, and keeps it there, or takes it off through the venti-The advantage of a perforated supply-pipe is that the air is not allowed to rush in with force in a great volume, which is sure to carry dust with it if there be any to be found, but it must enter slowly, and be distributed over considerable surface; this neutralizes the force, and diffuses it throughout the room just as it is needed.

Fig. 3, is a section of ventilator showing an interior automatic valve, which is intended to prevent a downward current. On one side of the pipe a piece is put in on an angle, filling about one-third of the opening, and on the upper edge of this the valve is hung. It is so constructed with a double thickness on the narrow side that its own weight will keep it open, but the least current of air coming down will close it. Care should be taken in hanging this valve to have it work perfectly free, for on this will its utility depend.

The top of the ventilator may be protected by a hood, as shown in the diagram, or any of the improved ventilators in common use might work well.

In reasoning on this plan, it might be suggested that the currents of air will not move as desired. That is, the supply-pipe will be as likely to prove a means of egress as ingress; that the air, becoming warm at the top of the room, will escape through this pipe, and keep up an outward current instead of an inward one. This may prove true when a door or window is open, so that a pressure of air comes in from below, and then it will certainly do no harm if heated air escapes in that way; but when the room is closed, and the heavy air is drawn off from the lower part of the room by the ventilators, the pressure on the heated air above is removed, and the sort of vacuum there formed by the air becoming continually rarefied by heat, will cause a constant rushing in of fresh air to supply it. This fresh supply falls, and takes the place of that being carried off-and so a continual circulation is kept up, giving a fresh and healthful atmosphere.

ART STUDIES FOR ALL.

VIII.

(Continued from page 43.)

56. The study of light and shade we referred to in the last volume, but we deem it expedient to take it up again here in its application to composition. The management of light and shade in a composition requires great care and study. The adaptation of it to the character of the subject is not only to be considered, but the quality of draperies, accessories, &c, in regard to their power of absorbing or reflecting light; the mechanical arangement of light and shade that will be produced, and the force and nature of colors that may affect the composition.

57. Whether the picture be a group or have but one principal figure, the arrangement of light should be such as to give prominence to the principal subject, by avoiding the introduction of anything that will draw the attention away from the central figure or figures. If a group is to be photographed, such an arrangement of light must be made as will illuminate the whole, and give prominence to the figures composing the group rather than to background or accessories. As to the nature of materials that compose a group, violent contrasts, such as black and white drapery, should be avoided. The light cannot be arranged to do justice to such extremes, and the harmony of the lighting as well as the composition is often destroyed.

58. With a single figure the whole arrangement is more under the control of the artist than with a group, and the various points of the picture can be studied to produce the best possible effect. The nature of the light best adapted for the subject, is the first consideration. If light drapery, a much more subdued light will be required than for dark, and the accessories must be arranged so as to not be entirely lost by contrast. The observation in reference to extremes of black and white apply here as well as in groups, and with white drapery anything that absorbs light to any great degree should be avoided.

59. The source and direction of the light must be considered according to the nature

of the composition. According to the rules of art, a top-light produces the best effect, by allowing every part of the picture to be more clearly defined. An oblique or side light casts the shadow of one object upon another, and sometimes runs them together in confusion. In portraiture, however, care must be taken with a top-light to avoid heavy shadows on the face. In landscape photography, where the principal points are much separated, an oblique light is very effective in giving force and expression to the composition.

60. Unity of light in a picture is an established rule of art, founded on a law of nature. This rule is not so applicable to groups for portraiture, where we are obliged to light all equally well, as far as possible, as it is to the style of grouping known as genre composition. But in pictures of the latter class, as well as those of single portraiture, the principal figure should be placed in the focus of light, while everything else is subordinate. The centre figure then becomes the centre of observation; for the eye is ever attracted by light and turns instinctively to it. Gradation, so indispensable to harmony, requires the same attention in lighting the different figures of a composition, so that a perfect blending, from the principal figure, in the strongest light to that of the least importance, in the deepest shadow, may be secured, as in lighting a single face, where a harmonious gradation from the highest light to the deepest shadow is now so universally sought for and obtained. It will be readily seen, that under the proper regulation of laws, light is to the artist a language or medium of expression, the due observance of which enables him to make clear the plan of his picture, and give the interpretation he desires.

61. Objects receiving light should not be extended to the margin, because, in the first place, the lights cannot be well supported by the shades. In the next, extending the lights quite to the boundary gives the effect of an unfinished picture, which destroys the unity, so essential to the harmony and completeness of the subject.

62. The lights, as well as the figures, should vary in form. This depends much upon the management of the drapery. In

the infinitely various modes of arranging draperies, the artist may contract or extend his lights at pleasure, varying the general effect to any extent.

63. If the light and shade in a picture are well arranged, and in due quantity, the effect will be pleasing, even at such distance from the eye that the subject cannot be distinguished. It is then a mere correspondence, or a balancing of light and shade. On a nearer approach, its force and powerful relief attract the eye, and fix the attention of the spectator. It will not have this effect, unless it possesses the essential requisites of chiaro-oscuro.

(To be continued.)

THE CHICAGO EXHIBITION.

After an extended tour in the West and Northwest, I am able to say positively that the next exhibition of the National Photographic Association will be strongly represented by delegates and exhibitors from those sections. The desire to exhibit work seems stronger and more unanimous than on any previous year, and many at present unknown names will, after the Chicago Exhibition of 1874, stand in the front rank with our ablest professionals.

Away in some secluded village, off from the main lines of travel, I have been startled with pleasure to find productions which will compare favorably with those produced in many metropolitan galleries.

In one special instance, on inquiring as to the means used in acquiring the knowledge and taste exhibited in the work displayed, I found the photographer was a subscriber to twenty-five dollars' worth of art literature per annum, among which was the London Art Journal, the Philadelphia Photographer, the Aldine, and Mosaics. these and starting with a natural taste for pictorial effects and a love for his business, he has risen to rank par excellence, as the next exhibition will probably prove. Everywhere I find the skilled ones the reading ones; and they show it not only in their work but in their manners and conversation. They are wide awake to anything which will advance them in perfecting themselves in their business. Some are getting rich, and many of them are in prosperous circumstances. Most of them acknowledge that the way was shown them through the study of photographic publications, and above all by the meetings or reports of the National Photographic Association or its annual exhibitions. Most are already members, and nearly every one of those who have not joined expressed a determination to do so.

Friends, there is another side to the picture taken on the same trip,—men doing business so ignorant of their work as not to be able to keep out of the fog over half the time. Some do fair chemical work, but pose only to expose their ignorance of all art principles, and even of the mechanical laws of their business, and who do not know enough of their business to explain intelligibly to their customers the answers to questions every day asked.

Such cases of course are rare, but they ought not to exist at all in a business which assumes and is generally recognized as a fine art. May the grand army of progress induce them to join its ranks, with the hope that, by example and precept, they may be led to become members in mind as well as name. The West is bound to make a grand showing at Chicago, and we say to all, "Look to your laurels." B.

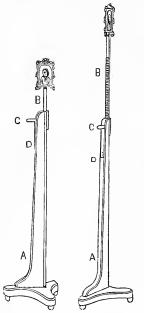
BUTTERFIELD'S SIGHT-REST.

BY J. B. BUTTERFIELD.

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GLANCING over the October number of the *Photographer*, I espied a little arrangement illustrated and called a sight-post, and having felt the necessity of some such article myself, especially when using the heavy head-rest for the purpose, which is a very inconvenient article to be moved about so much, and causing a great deal of unnecessary labor, I devised one for myself, which I think is a neat and effective little article, and which I have called a sight-rest; it can be raised or lowered to any desired height for either sitting or standing pictures, and I find it very convenient and useful, and would not be without it.

Fig. 1 is the rest at about the height for a sitting picture. A is the stand and upright, made of walnut or any suitable wood.



The front of the upright is grooved thus, to allow the sliding-rod B to lay close and be guided by the upright.

C is a ratchet-pall, held in place by spring D, on the back of the upright, and catches in depressions in sliding-rod B, as shown in Fig. 2, thereby holding the rod at any desired height. The same can be raised or lowered simply by pulling the rod up or pushing it down.

The rod is surmounted with a tasty and showy frame, either eard or cabinet, which contains a picture in some pleasing position, claiming the attention of the sitter, and helping the operator to a great extent to produce a picture with a pleasant expression, much better than gazing at the corner of the camera-box or unsightly head-rest, which is entirely out of place.

ERNEST KRUEGER'S colors for albumen paper are very brilliant, and Mr. Rau, the agent for this country, has shown us some photographs prettily colored with them. Please read the advertisement.

SOMETHING ABOUT PLAIN PRINTS.

BY M. COSTELLE EDGERLY.

It is a greatly to-be-deplored fact that the photographer in general has so incomplete a knowledge regarding that part of his work which is to pass through the finishing hands of the artist or colorist.

There are many unhappy artists, who often receive prints, which, to save their reputation, they must refuse to use, and must return with complaints; there are many tortured photographers, who daily waste their substance in the manufacture of prints which will be returned only to be destroyed.

For the sake of these distressed ones, I desire to make a few suggestions to my friends, the photographers, on the proper mode of preparing plain prints.

But first, do try, and accept, and follow this counsel.

If a competent artist returns to you a print which he claims is not fit for working, believe him, cheerfully accept the situation, and try and better a new print all that you are able. Believe that it is even more for your interest than his to give him the very best of prints, and that in case of the production of an unsatisfactory picture, your name will suffer more than his; for the gallery from which a painting emanates is always quoted more generally than the name of the artist.

If the picture is good, strong in likeness, finely executed, and brilliant, your name is thereafter glorified by all who see and admire; and it will be hard to break the faith of such trusting persons in your ability to perform almost any known thing in the art of picture-making. The first thing to be regarded in making a plain print, is the utmost cleanliness. Bear with me, ye dainty ones, whose motto is: "Cleanliness, and then godliness." It would be hard for you to credit the trials that we sustain just from this one thing-soiled prints. The tiniest mark of a soiled finger on plain paper cannot be entirely overcome in finishing. Color cannot be mixed to use on an oily surface, so that it will not be still apparent when the light strikes it in a certain way. Then the paper must be handled carefully, that there

may not be a break or wrinkle anywhere; and moreover, brilliancy cannot be obtained when the paper has been silvered long enough to have lost, in the least, its pristine purity. The lights will be yellow and opaque, and any tone that the print may receive will (mingled with the yellow hue of the paper) cause muddy and clouded shadows. The tone, I am well aware, is a mooted question among artists, or "socalled" artists; for he who contends that the brown tone is the proper one does not fully understand his business, and I can prove it. There never can be made a clear flesh and blood face over a brown tone. Especially is it impossible to depict certain varieties of complexion true to life, with their marvellously pure sea-shell tints, and transparent blue traceries of veins. Where the deeper shadows are above the eyes, under the chin, and some other occasional shades, the tone does not matter, it is well enough there; but in the lighter shadows, on the temples, brow, under the eyes, about the mouth, and on the neck and bosom, there should not be a trace of brown; for these are delicate shades, grayish, or inclined to blue or green, and must be pure and fransparent, showing no dirty undercurrent of any other color, and especially any color made in the photograph.

The painting which shows the photograph peeping through its colors, reminds one of that economical young woman, who inquired how much it would cost to have one coat of paint on her picture.

The photographic print should be used simply for the assistance its outlines give to the production of a correct likeness; that secured, it should be completely covered, painted out, and entirely lost for evermore to mortal vision,—only the painting left with its firm flesh and graceful draperies standing out independently from the distance of the background.

Next come those artists who stipulate for a blue tone. That is not much better than brown, but is a little. I used to call loudly for that myself before I learned better. But there are certain complexions which cannot be painted any more successfully over a blue tone than can some others over the brown.

Then comes that perfection of tone for all kinds and descriptions of to-be-painted pictures; the clear neutral gray, than which there can be none more suitable.

Any photographer from whom I receive prints with this tone, has my enduring respect.

For crayons and inks, this is the only one that is admissible, inasmuch as it is impossible to hide the photograph in those truly beautiful productions of art when the prints have any approach to color, as red, brown, or blue.

In the working of pictures which have a blue tone, a compromise is often effected by a mixture of color with the ink, till the photograph's tone is, so to speak, infused into it. This too is done for working a brown tone, and the effect in the finished picture, although better than could have been gained without, looks like an expression of bad taste in the artist, when it is only his misfortune that he is compelled to resort to such means.

The brown crayon print though is irremediable; for crayon cannot be modified by red or any other color. Black they are as drifted charcoal, and black must they remain, though the print be as brown as a nut.

And these pictures, bear in mind, are expected to delude people into the belief that they resemble fine lithographic engravings; and properly made they do, only that they surpass them.

But do you not see that these colored faces, stippled with black, bear not the slightest similitude to an engraving, with its pearly lights and effectively transparent shadows?

To cover the brown tone of the shadows, the crayon must be ground in until it reaches a density that gives an effect too sooty for any white citizen.

This never will do; so the brown shadows and red half-tones must be allowed to look through the crayon, the lighter parts of the background must remain of this same color, so decidedly foreign and inimical to the supposed object of the picture, and the high-lights in the drapery must also take part in the general discoloration.

Perhaps I have devoted too much time to

this talk about tone; but I do not think that too great stress can be placed on its importance; for why should we not, in one piece of work as well as another, be fastidiously careful in every minor detail which goes to make up the grand result?

When we attempt the portrayal of flesh in colors, on eany as or paper, all acknowledge that there cannot be too great care in searching out in the human face and perpetuating in the pictured one, all the delicate tints and all the peculiarity and richness of color that can be found, to make it approach as nearly as lies in human power, the living breathing, original. Then why should not the photographer and artist work together to secure every means in their united power, to make ink and erayon pictures as minutely as possible like the engravings they represent?

It is the duty of every photographer who does not already understand them, to study up the processes through which a plain print should pass, to issue forth a success. Many unquestioningly believe that plain paper is to be subjected to like treatment with albumen; they use the same fixing and toning baths, and the same time in each is allotted to both. This is a serious error; and though I do not know the modus operandi by which magnificent results are gained, I do immediately recognize a result, be it magnificent or otherwise. The brand of the paper, as far as I have noticed, makes but little difference. The ordinarily used paper is all good if only it receives proper attention and treatment.

I wish some one of the philanthropic readers of this journal, who has been successful with his plain paper baths, would send his formulæ for publication. I could call on several by name, but their excessive coyness forbids.

Sometimes the innocent paper passes through such processes of torture, that it comes forth roughened and coarse-grained, with a surface like blotting-paper; so extremely like, in some cases, that the most carefully laid-on washes leave a hard line wherever the color stops its flow, which will be without any warning, and on every possible occasion.

This rough soft paper can be used to

better advantage for large pictures; but there is certain failure in any attempt at the elaborate finish required for small ones.

Still, a really better effect can be obtained even with such paper than with that so glossily smooth that color will only partly absorb, and barely adhere. That the picture should be a permanently enduring creation, the paper must be capable of absorption to such an extent that its fibres can be completely saturated with color, so that the well-diluted tints can be soaked in, little by little, till it is full to the surface. Such a picture cannot fade or easily be destroyed; but we cannot say as much for these with hard smooth surfaces, on which thick color must be stippled with a fine-pointed brush. Such can but be the merest daubs, and liable to perish soon from the face of the earth, which is one comfort.

(To be continued.)

A WORD FOR OUR PROFESSION.

BY W. HEIGHWAY.

THAT it is a branch of the fine arts, is the honorable boast of those of our number who have a love for their work and ambition above the sordid consideration of dollars and cents; but there are by far too many of us who have no just conception of or care for the higher claims of art, and tinkering along a daily routine of careless, botchy work, merely regarding it as a trade, by which they can subsist with less labor than by following heavier trades, for which they might be better adapted. No wonder then, with so many of these evidences of perverted skill (?) constantly before them, that the public misjudge the merits of our beautiful art, and degrade it to the level claimed by this miserable mediocrity.

It may be urged by some, that this objection is a very fanciful one; that it matters little what is thought of us by the public, so long as they come to us as sitters and pay their money. Individuals advancing such an opinion take to themselves credit for a great deal of philosophy, that they are able to take such a high and independent ground. But in reality is it not rather grovelling than noble, and is it not our duty to strive

to gain the good opinion of the world in an honest and manly way?

We should treat all our visitors in a uniformly courteous manner, not toadying to the rich and influential, and snubbing the poorer of our customers; adopting politeness and uniform attention to all, not as a policy that pays, but as a duty to ourself as a gentleman. That you will reap a benefit from it, there is no doubt, and in addition to this pecuniary advantage you raise the tone of your business and tend to an advancement of the profession.

Not one of the less active of the causes of the low estimate the public take of photography as a profession, is to be found in the constant parading of vulgar jealousies; that public washing of dirty linen, alas! too common amongst us. Let us never fail to speak with the greatest possible respect of our competitors and their work. Instead of petty sneers and insinuations of ugly things, which are mean and contemptible, let us speak of our rivals as we would they should speak of us. Our listeners can discriminate between the utterances of jealousy and the expression of fair and honest criticism; and the calumniator, believe me, does not benefit himself, but only brings discredit on the profession. A little more politeness and charity, and a little less jealousy would tend greatly to our advancement in the respect of the public.

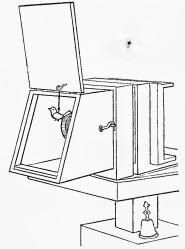
The time has come when our profession depends on the highest order of culture, thought, and art knowledge, for our customers are becoming more and more enlightened in art matters every day, and bring fine discriminating powers to bear in judgment of our work. It is necessary for us to be ahead of them, or we shall find ourselves deserted of all our friends; while we shall see Mr. Jones, across the way, who does keep up with the times, who does think and act on his artistic knowledge, and is of gentlemanly deportment, has his gallery filled with satisfied patrons.

Read the journals devoted to photography. You may not be able to see how much you gain by it; you may even doubt if you have gained a single "wrinkle;" and perhaps you may believe you know more than the editor and all his staff put together. But

even in this unpleasant state of mind, read. READ all this "trash and nonsense;" it tends to elevate the mind, and in that way, if in no other, it does you good.

HOW TO CUT THE PAPER—HOW TO CATCH THE BABY.

HERE is our method of cutting paper. We have two pieces of zinc, the first of which is $3\frac{5}{8}$ inches, and the second 2 inches wide; take a quarter sheet of paper, lay it on the table, place the larger pattern on one edge and cut off a strip the width of the pattern; lay it on as before and it will just half cover the remainder. Cut along the edge as before, and the quarter sheet is in 3 strips 37 inches wide; then take the smaller pattern and cut across the strips in the same way and you have pieces of paper just right for cartes de visite. We use a rolling glass cutter (Robinson's trimmer would probably be better), which does not go close to the pattern, so the latter are a little smaller than the paper is to be cut. If a cutter is used that will cut the paper as small as the patterns, the latter should be $3\frac{7}{8}$ and $2\frac{1}{2}$ inches respectively. The above method gives 48 eartes out of a sheet, and is much more convenient than to fold the paper and then cut; besides, it leaves the edges smooth and straight, and does not break the paper.



you may believe you know more than the ditor and all his staff put together. But shows our way of "catching the baby."

The box was described in the World some time last summer.

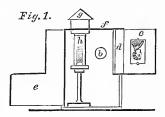
Raising the front causes the bird to swing enough to attract attention. (See cut.)

PORTER BROS.

HOW TO MAKE A WONDER CAMERA.

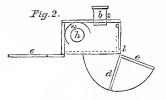
Probably there are but few photographers who know how easily they can make a "wonder camera."

The so-called "wonder camera" is intended to show opaque objects upon a screen,



much enlarged and in their original colors. A common card photograph may be shown as large as life without the least coarseness, but as fine as the original.

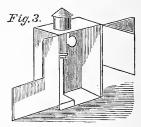
Colored lithographs of all kinds are very beautiful when enlarged in this manner. As a means of amusement it far surpasses the magic lantern. After experiment I have succeeded in making the above instrument in a very simple manner. It consists of a wooden box with a top made of tin or sheet-iron; the chimney is made of the same material. The lens is the same as used upon a camera for making photographs. At the back of the box (as will be seen by reference to the plan and elevation) are two doors placed upon hinges. When the box is in use the door e is kept closed. The



other door consists of two parts placed at right angles to one another; the object of this is to fill the opening in the door e while the pictures are being attached to c; when c is swung into position opposite the lens placed at b, d is carried to one side.

If stereoscopic views are to be shown, a slit may be cut at *e*, through which they may be inserted without opening the box.

The door e should be cut off a little at the bottom so as to admit air. The light is placed at h, as nearly opposite the picture as possible. It should be a strong light; an argand burner is the best. At the back of the light is a piece of tin, bent into the form of a reflector. The light coming from h



strikes c, and is reflected through the lens upon the screen. The plan of the box is represented with the top removed.

I have given no dimensions, as they will depend upon the focal distance of the lens and height of the light. Care must be used to have the distance from the lens to c, when closed, equal to the focal distance.

By following the above directions any photographer can make a camera, which if purchased would cost from \$25 to \$30.

CHARLES M. CARTER.

WRINKLES AND DODGES.

I NEVER saw or read of any one doing it just as I do. I place my paper on the solution, tap it (the paper) gently with my fingers to break bubbles (if any exist), but to make sure, I lift it up at the corners and examine, replace, and then gently oscillate the dish, so that the solution is in motion most of the time the paper is on it. By this means the solution is of the same strength throughout, and each piece of paper receives the same amount of silvering; and the silvering is done in less time and more thoroughly. After each piece is sensitized, I hang it up by one corner, so that the opposite end (the drip-corner) hangs by the side of the dish, and just touches the solution. By this means I save all my drippings.

J. H. HUNTER.

I MUST tell you how I got out of a scrape a few days ago. Perhaps it is worth publishing, as some in a similar "fix" might not think of it.

I was called away, about ten miles from home, to photograph a corpse, and upon arriving and unpacking my camera I found the plate-holder had been left at home—it was but two hours till time for the funeral. No gallery nearer than mine, and it was out of the question to go back after it. I kept a straight face and said nothing, but proceeded as follows:

Got everything arranged; camera in position, focussed, and racked out the tube the thickness of the negative glass, carefully noted the position of the camera on the stand, and removed it to the dark-room. Then covered the back of the ground-glass with the focussing cloth, folded in several thicknesses. Then set a strip of pasteboard on edge at the bottom of the ground-glass, on the inside, of such width as to bring the plate up to proper place, and secured with pins at either end; placed the plate in front, and in contact with the ground-glass, and found the bath on the back of the plate held it there nicely; placed the camera back on the stand, as before, and fired away. Got my negative, all right, of course. Would not advise any one to leave the plate-holder when they go out, but if they should, I know of no better way out of it.

L. MOULTON.

Some time since I had to copy and enlarge the middle picture of a group of three persons, in which the outside ones rested their hands on the shoulders of the middle person, in such a manner they could not be vignetted off without taking all but the face of the middle person. I made a print with them on, and then mixed pure albumen with the india-ink, and with this painted the hands out without blotching the print much. It was scarcely noticeable when framed.

Mixing albumen with the ink is an old thing, I know, but may be of use to some of

your many readers, if you think it worth publishing.

E. K. ABRAMS.

I HAVE a little dodge in tinting medallions. It is simply this. Having assorted the sizes I place the cards in a cigar-box; take them to my printing window. Having first placed a folded paper on the sill, I proceed to place my prints behind the masking glasses (my masks are pasted to 1-4 glass), and laying them on the folded paper, placing as many in the light as I can readily tend. No clothes-pins or pads. This enables me to tend about six prints, alternating, keeping me busy.

E. B. Cores.

I had a broken ambrotype to copy. It was in a dozen or more pieces, made on white glass. The breaks showed badly, and the black varnish on the back was all chipped, so I took the picture carefully out of the case and matt, &c., carefully cleaned the black varnish off, took a ferrotype-plate, gummed it, then I took a brush and indiaink and carefully blackened the broken edged places on the gummed plate, pressing the edges close together, taking care that no air-bubbles remained under the plate. I noticed before, in copying a broken picture, that the cracks were seemingly larger than in the ambrotype, and I thought it might come from the refraction of light through the cracks. By blackening the edges I J. H. HUNTER. stopped it.

I have made a little discovery (new to myself at least), in regard to clearing old baths of iodide. Let the bath get almost cold enough to freeze, and the iodide will form in the shape of very fine crystals, which are easily filtered out. I find the method very simple and effectual, especially in winter. When summer comes, I shall adopt the plan of packing my bath in ice, to produce the necessary degree of cold. This may be old to you, but I find it a decided saving of time and labor over the old method of diluting, filtering, and evaporating.

S. M. MILLER.

Mosaics, The Year-Book of Photography, and British Journal Almanac, for 1874, we will mail to any one for \$1.50.



Queries.

On examining the negatives by different makers, I observe the films have different colors; thus we see bluish, grayish, white, lead-color, dark-brown, drab-brown, &c., &c. I have failed to find in any work on photography any explanation or information on this subject. The olive-brown being no doubt preferable, can and will any of your readers throw a little light on this point: whether the color can be obtained at pleasure, by the developer, or certain conditions of bath, light, &c.?

Some days, mine are of a rich brown; others, again, cold and blue.

OLIVIA BROWN.

SOCIETY GOSSIP.

PHILADELPHIA (Philadelphia), Feb. 4th.

—Messrs. D. Anson Partridge and John R.
Clemons were elected to membership.

Dr. Seiler exhibited some microscopic enlargements, and made some remarks on the apparatus required for making them. He said that he had obtained a superior illumination suited for all work not exceeding 1000 diameters, by condensing the direct rays of the sun through a bull's-eye condenser upon a concave reflector attached to the stage close to the object. This gave a comparatively large circle of strong light, which was of great advantage when using low power objectives. The Doctor said that he had been enabled to avoid the occurrence of "refraction lines" around such bodies as diatoms, blood-cells, &c., by diffusing the light through a piece of groundglass before it passed through the object.

Mr. Young said that he had succeeded in

obtaining some dry negatives free from halation, without the use of backing, by adding to the sensitive emulsion thirty drops of a solution of aurin in alcohol. It did not seem to interfere in any wise with the good working qualities of the emulsion.

A vote of thanks was tendered to Mr. Young for an improved oxy-hydrogen lime jet, which he had donated to the Society.

PHOTOGRAPHERS' EXHIBITION. — The members of the Boston Photographic Association held an exhibition last month at the rooms of Mr. J. W. Black, for the purpose of comparing their handiwork, and informally discussing matters pertaining to the art of photography. Although the Association has been in operation about three years, yet this is the first exhibition the members have had among themselves, and its success will doubtless lead to others of a similar kind in the future. It is also proposed to give a general exhibition some time during the coming spring, under the auspices of this society. About thirty gentlemen were present at the meeting, and the collection of contributions was quite large and very fine in character. Mr. D. W. Butterfield, of Boston, entered some large White Mountain views, which were exceedingly well executed. The cloud effects in . these pictures were especially deserving of note. Mr. E. J. Foss, of Boston, exhibited some large portraits in the Rembrandt style, which attracted a good deal of interest for their success in this difficult line of the art. He also showed a couple of full-lengths of Maguinness, the comic actor, which were very odd in their way. Mr. M. T. Carter, of Worcester, displayed a case of cabinets, all female heads, which showed fine artistic skill, particularly in the management of the draperies. Messrs. Phillips, of Lynn, Black and Hardy, of Boston, and Russell, of Lawrence, also exhibited some excellent cabinets, and Messrs. Wires, of Lynn, Vickery, of Haverhill, Richardson, of Wakefield, and others showed pocket specimens of great merit. The exhibition as a whole was very successful, and contributed to both the pleasure and profit of those present.

Such exhibitions are of great value to all who can attend them, and we should be

glad to see them multiplied all over the country.

INDIANA (Indianapolis), Jan. 4th.—The subject of "Developer" was discussed at some length in an interesting and profitable manner.

Mr. Clark had tried the new "Compound Developer," and pronounced it a failure.

Messrs. Fowler and Dryer had tried it more thoroughly, and recommended it highly, stating that the exposure need not be more than half as long as where the ordinary iron developer is used. They were both of the opinion, however, that its keeping qualities were not good, and that it lost its strength rapidly in solution.

Mr. Elliott suggested that there was no use in guessing on the subject when an ordinary hydrometer would readily indicate the strength of the solution.

All agreed that "how to shorten exposures and work successfully," was an important problem, and experiments in that direction ought to be encouraged. Clouds and rain having been the order almost invariably during the last month, the members had not been able to make the necessary pictures by which to illustrate properly the subject of "Lighting and Posing," and on motion, the discussion was postponed until our next meeting.

DISTRICT OF COLUMBIA (Washington).—Mr Bates read a very interesting paper on "Facts, Positive and Negative," after which considerable discussion ensued as to the best mode of getting rid of a grievance which affects the profession injuriously, when the following resolutions were finally agreed to:

"WHEREAS; The Senate of the United States has been in the habit of granting privileges to certain parties for the purpose of carrying on the photographic business in the Capitol building without having to pay rent, license, or taxes; and whereas all such discrimination is unjust and injurious:

AND WHEREAS, It has become a common practice for photographers in the employ of the government to undertake commissions for pay, often at very low rates, thus entering into competition with members of the profession who have to invest capital, buy

material, employ assistants, pay rent, license, and taxes: therefore be it

Resolved, That the Executive Committee be authorized to memoralize Congress to grant permission to any member of this association, who may desire it, to run a photographic establishment in the Capitol building free of rent, license, or taxes.

Resolved, That the Executive Committee be authorized to petition Congress to increase the pay of all photographers in the employ of the government, so that they may have no excuse for entering into a competition which was never contemplated when the offices were created."

No doubt the photographers of Washington and vicinity have just cause for complaint, and since our art is so very useful to the government in nearly all of its departments, we trust the voice of the fraternity there will be regarded.

MICHIGAN ALIVE TO A SENSE OF ITS DUTY.—The photographers of Bay City, Mich., held a meeting February 3d, and organized a society for Northern Michigan, with Mr. R. M. Cressy as Chairman, and Mr. J. H. Scotford as Secretary. A committee was appointed to draft a constitution and by-laws, to report at the next meeting, to be held at East Saginaw. We are glad to see this.

GERMAN PHOTOGRAPHERS' ASSOCIATION (New York).—Newton's Washing Process.— When Mr. Newton, over a year ago, published his process of removing the hyposulphite of soda in the prints with acetate of lead, a committee was appointed to test this method thoroughly. Said committee reported at next meeting, that the prints were indeed free from all hypo, but that the tone had changed a little from brown to blue. At the same time, fears were expressed that the new chemical combination would in time injure the prints. This has proved now to be only too true. The Secretary, who was chairman of the aforesaid committee, subjected at that time several prints out of one day's printing, to the acetate of lead washing, and kept these together with other prints of the same lot, but washed in the usual manner. At the last January monthly meeting, those prints were exhibited, and

showed that those treated with lead were bluish-yellow and very much faded, whereas the others had lost nothing of their original brilliancy. The meeting thought it very desirable that other associations or individual photographers should publish their experience in this matter.

Air-bubbles or Albumen after Fixing.—Mr. E. Krueger ealled the attention of the meeting to the minutes of the Berlin Society for the Promotion of Photography as published in the Mittheilungen. Our Berlin friends suggest the addition of alcohol, ether, &c., to the hypo bath for preventing those bubbles, but nobody seems to think of the old and sure remedy of putting the prints in a strong solution of common salt after they are fixed. This has besides the other advantage, that prints treated in this manner lose their hypo more readily in the washing. If bubbles should show already during fixing, then a weaker hypo solution is desirable.

Causes for Fading of Pictures.—Quite a discussion sprang up, whether light or air is the more damaging factor for causing pictures to turn yellow and fade. Numerous instances were related, where prints excluded from all light turned yellow, and others, which were exposed, did not, and vice versa. Several members promised to make extensive experiments in the hope of solving this problem, and it was suggested to call the attention of the numerous photographers' associations to this subject in order to get reliable facts from all quarters.

Photographic Institute (Chicago).—The members of this thriving society, impelled by their artistic surroundings in their pleasant meeting-rooms, have taken up the study of art principles with a will. Mr. P. B. Greene read a very creditable paper recently, from which we make some extracts below, which was illustrated by means of the sciopticon. This latter fact, and the fact that it was interspersed with readings from Ruskin, make it impossible for us to render it intelligibly.

The subject of admitting females to membership is also being anxiously discussed at the Institute. Why discuss it? Why not follow the example of the National Photographic Association in the matter?

Among other good things, Mr. Greene said:

"Why should we be contented to receive \$40 or \$50 for a picture for which an artist would charge from \$150 to \$500. There is but one answer for this. We do not consider our work as good as his. There is no reason why we should not produce as good work as any artist. If we were qualified to do it, we could; but we have been working on the wrong track all the time. It has been our object, or of most, if not all the photographers, to see how cheap they can do the work, instead of trying to see how much they can get, and how good a job they can do. I will ask you, all of you, would you not rather give \$250 for coloring a photograph if you could sell the same for \$400 or \$500? You know that all the portrait painters use photographs to assist them. Now there is no reason why photographers . cannot get just as much for their work as other artists do, if they will do as good work, and the only reason they do not do it is because their work lacks artistic excellence . . .

"I am afraid too little attention is paid to the lighting of the negative, and too much is expected of the retoucher. I think that all that should be done to a negative in the way of retouching, should be to smooth it up, but nothing should be done to the high-lights.

"There are ten negatives spoiled by working them too much where there is one that is not worked enough. I will leave the portrait branch of the art for others to discuss, and will take up landscape or outdoor photography.

"This is a branch of the art which you cannot control as you can in the glass-house. You cannot shut off or let on light; you cannot turn your subject to the light to suit; you have to take it as you find it, but you can wait for the sun to move round to give you variety in lighting.

"For architectural works of light color, you will get the finest effect in detail on a light, cloudy day, but not as much strength and vigor as you will by sunlight. Red brick and dark colors always require sunlight. Also all landscape work where there is foliage or water require sunlight."

Now followed a lantern display of some very fine examples of outdoor work.

CHICAGO PHOTOGRAPHIC ASSOCIATION, Feb. 4th.—The evening was taken up mainly with the installation of the new officers, an address by the retiring President, Mr. Hesler, the appointment of Messrs. Denslow, Sloat, Hine, and Cross, to read papers at the next meeting, and addresses by visiting members. Negatives were also shown, and their merits discussed, much to the profit of those present.

PENNSYLVANIA (Philada.), Feb. 16th.— L. C. Fisher and Harry B. Hansbury were elected members of the Association.

The Committee on Medal reported that there were but two competitors, who proved to be Messrs. Henry F. Smith and Joseph D. Butterfield; the medal being again awarded to Mr. Smith.

Mr. Moore, for the Committee on Art Lectures, reported that it was deemed inexpedient to hold a course of lectures this season. It was thought best to postpone the matter till another winter, and then commence earlier. In the meantime the question should be kept alive, and as much interest created as possible, so that the movement may receive the unanimous support of the members.

Mr. Shoemaker called attention to the excellent article in *Mosaics*, by Frank Jewell, on "Lighting the Sitter," and by his request it was read.

The Secretary presented several cabinet pictures which he had received from an old member of the Association, well known to many of the members, Mr. S. M. Robinson, of the firm of McClurg & Robinson, Pittsburg. The pictures were examined by the members, and received complimentary comments.

Mr. Carbutt called for a report of the working formulæ of the successful competitors.

Mr. Smith said that he had used the same formula for several years: Silver bath, 40 grains; collodion, 2½ grains bromide to 4 grains iodide; Hance's Silver Spray cotton, which had proved the best he could find. Developer: Iron, 1 ounce; water, 20 ounces; acetic acid, from 2 drachms to 4 ounces.

Mr. Krips also gave his formula as follows: Iodide of potassium, $2\frac{1}{2}$; iodide of cadmium $2\frac{1}{2}$; bromide of cadmium, $1\frac{2}{3}$; Anthony's red labelled cotton well washed. The older the collodion the better it is; gives more brilliancy and depth. Developer: Iron, 1 ounce; acetic acid, $\frac{1}{2}$ ounce to 40 ounces water.

Mr. Carbutt said he was fitting up a darkroom for copying, and had found the bichromate of potash light very effective. He
filled a glass bath with a solution of one
ounce of bichromate to twelve ounces of
water, and placed it in the window as
recommended in the *Year-Book of Photog-*raphy. Part of the day the sun shone directly on it, and it gave a beautiful nonactinic light.

Mr. Rhoads said he found an excellent light by using yellow and green glass.

On motion of Mr. Rhoads, voted that in future each successful competitor for the medal contribute his process in writing to the meeting following the award.

A SPLENDID OFFER.

A MAMMOTH LENS AND BOX FOR \$3.

A GREAT many ingenious plans have been suggested for the raising of funds to place the National Photographic Association on a business basis again by freeing it from debt. The best and the real plan is, for the members to pay their dues, but as that is a slow method, seemingly, some liberal gentlemen have come to the rescue with a plan which we believe will at least partially do the work. Men "go in" to a thing liberally when there is a hope of their getting something back, therefore we believe the offer we are authorized to make now will receive popular approval and acceptance. It is this:

Messrs. Benjamin French & Co., agents of the world-renowned Voigtlander lenses, agree to give away a new No. 9 Mammoth Lens, price \$425, and Scovill Manufacturing Co., proprietors of American Optical Co.'s works, promise to give with it one of their best-finished and latest improved double swing-back portrait camera boxes, of a size to suit the lens, on the following conditions:

1. The lens and box are to be given at

the Annual Exhibition of the National Photographic Association at Chicago.

- 2. They will be given to one person of six hundred who meanwhile contribute \$3 to the debt fund of the National Photographic Association.
- 3. Every person contributing said sum will remit it to the Permanent Secretary, and will be sent in return a numbered card, which will entitle him to a vote, by proxy or in person, as to the holder of what number the lens and box shall be given.
- 4. Each ticket entitles the holder to one vote, and one person may have as many tickets as he chooses to contribute for.
- 5. Any person unable to attend may select his proxy to vote for him.
- 6. The box and lens will be on exhibition at Chicago, and there the vote will be taken as to who shall have it. Six hundred tickets, numbered the same as those sent to the contributors, will be placed in a receptacle, and from it three shall be drawn. Which one of these three shall secure the lens and box shall be decided by the vote of the contributors.
- 7. The lens and box are given to the Association by the gentlemen named, and all the contributions go towards the removal of the debt of the Association, so that if the majority of the contributors fail to secure the gift, they will at least have the satisfaction of benefiting the Association, which is so much benefit to them all. The voting will be so conducted that the utmost fairness is guaranteed. The parties give the articles to benefit the Association, and eare not to whom they are voted. There will be a lively demand for the tickets, and the number being limited, we advise our readers to secure all they can at once.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

III.

I MAY indulge the hope, I trust, that I will give offence to no one by taking up some of the few pages of this magazine with descriptions and illustrations of things I saw during my most enjoyable tour. I do not do it simply to amuse and to fill up. I trust I have a higher motive than that. For many years it has been my involuntary

habit to look upon everybody, and upon all things with the eyes of a hungry camera-to school myself to seeing everything that passes by and as far as possible to make up pictures and compositions of one kind or another as I hurry along. I derive a great deal of enjoyment in this way, besides many profitable lessons. Many persons go along and see nothing. Photographers should never do this, but be constantly on the alert for studies. Be careful, however, to avoid being a nuisance to those who walk with you, by calling their attention to what you see. I think one of the highest compliments I ever had bestowed upon my unfortunate head, was from a friend who almost daily walks by my side, when he said, "I believe you have eyes in all parts of your head," but he hurt my feelings at the same time, and now if I see a picturesque subject in the street, I enjoy it alone and say nothing. But you, my respected readers, are learning in a different school from my friend, and I therefore call your attention to these things, because I hope thereby to induce you to educate your eyes in the direction I have mentioned and to study nature. You will find in it an immense fund of enjoyment as well as much profit to you in the exercise of your daily work in the studio. And as feeling is a thing which should be displayed in every picture, I trust I do not err in selecting from the thousands which I saw, some of the most intensely feeling subjects. They are real ones though, and when the novelty of foreign travel wears off a little you may expect something more sober and substantial.

I forgot to tell you in my last of a little occurrence. These little kingdoms and duchies, and what not, some of them not larger than the Nutmeg State, are very jealous of their neighbors, and sometimes very exact in their examination of one's passport and of one's luggage. I avoided much annoyance on the latter score by carrying all my luggage in a satchel, but on the former, I was tripped up by a gentleman of the order of the spiked hat, as I attempted to pass from one depot into another. His hand was laid upon my shoulder, and he said in broken English, "What is your name?" I answered correctly. "An Englishman?" "Oh, no! anything but that!" "American?" "Yes."



The mighty signature of President Bogardus.

"Have you a passport?" "Yes," but then I remembered that I had sent my passport ahead to my banker to attach a vise for Vienna, not expecting any annoyance in this section. But a happy thought occurred to me, and acting upon it, I handed him the following:

To the Board of Jurors at the Universal Exposition at Vienna, of the Department of the Multiplying Arts.

GENTLEMEN: The bearer of this, Mr. Edward L. Wilson, visits your Exposition in the interests of the National Photographic Association of the United States, of which he is the Permanent Secretary, and we recommend him to you as worthy of any courtesies you may have time to show him.

He is the editor of the *Philadelphia Photogra*pher, the organ of the Association, deeply interested in the Arts and Sciences, and is in search of such information as will aid us all in the progress of our art in this country.

Any favors you may show him will be thankfully received.



Respectfully yours,
ABRAHAM BOGARDUS,
President,

W. IRVING ADAMS, WM. H. RHOADS, &c., &c. Executive Committee.

He read it carefully (?), examined the seal, and the mighty signature of President Bogardus, folded it up deliberately, handed it back to me, gave me a withering look, and said, "Pass on, young American man;"—and I passed.

Hardly does one escape from the clutches of such pompous and ignorant officials be-

fore he runs into another scrape. In many places the "station" doors are closed five

minutes before the train starts, and if you are late-and all these petty officials seem to try to make you so-you are left. If you and your coat-tail escapes the closing doors you are fortunate, but no sooner do you enter the depot than you become unfortunate, for if you attempt to cross the tracks, you feel another hand upon your shoulder, or see some



You are too late!

excited official in the distance running towards you, and exclaiming "Look out! you get run over there - you are too late!" Your only way is to preserve your equanimity and you will never miss a train. Yet, be as calm as you will, when night comes you are ready for bed, even though it be a Rhine bed. Did you ever sleep on a Rhine bed? It is, first, an immense feather bed into which you plunge. Coverlet, blanket, and counterpane are all embodied in one piece of furniture, namely, another feather bed, shorter and stumpier than the other. This you pull upon you If your feet are covered, your neck is exposed, and vice versa. If you are agitated in your dreams, the top-



Your anxiety to keep covered is increased.

most bed rolls on the floor, and there is a struggle to obtain it again. If in the struggle to do that you fall out, you are thankful that the bed is between you and the floor, for all the floors here are innocent of carpet. Your anxiety to keep covered is increased by a generous outpouring of the entomological specimens of Rhine-land, while you are

prompted to make a clean breast of it by the low ceiling and the heat. There is not much sleep between Rhine feathers—until you become accustomed to them.

But now I am in Dusseldorf, with Dr. Liesegang. This is a beautiful city, with the river dividing it in all directions, with its beautiful park and its cleanly streets, a direct contrast to Cologne. No wonder that artists congregate here, and no wonder that the pictures of the far-tamed Dusseldorf artists are so bewitchingly beautiful, because everything around seems to inspire one with æsthetic feeling. Here reside some of the most famous artists of the world; and here are several art galleries, private and public, which Dr. Liesegang and I luxuriated in for a whole day. It was a treat I shall not soon forget, and I longed for the time to visit the studios of some of the great masters. They are not backward at all in using photography as a helper in their work. The living model of to-day is not what she was in the days of Rubens, and Raphael, and Murillo. Then she could stand in almost any attitude for any length of time, and as often as the artist required her. Now her back is weak and her spine is curved, and she hasn't the strength to do as did her beautiful sisters in the ages that are past. What, then, is there to keep the artist from a state of dismay and despondency but willing photography, always ready and useful in ten thousand ways to give a lift to almost anything? The model is now taken to the photographer, posed in various attitudes, negatives made, and the walls of the studio covered with enlargements from them, so that she may now rest, only answering to the call of the master when he desires to see the color of her flesh or her clothing; for you must know that the great paintings which you see are not imaginary productions, but are made up from living, natural models. A really conscientious painter will scarcely put a flower in his picture without a natural one to paint from.

A large business is done here in copying oil paintings, by the Messrs. Overbeek. No sooner is a painting finished than it is taken to their studio to be copied by the camera; and there is a quality about the German copies of oil paintings which American

photographers do not seem to understand. The first great object is to light the subject properly. The copying-room of the Messrs. Overbeck is very large, and perhaps eighteen feet high, with high front and side-lights. All the walls and objects in the room that would act as reflecting surfaces, are carefully blackened, and all extraneous light is shut off from the lenses by long cones, which reach out as far beyond the brass-work as possible. The camera is placed on wheels, which run on an iron track nearly the whole length of the copying-room, and fastenings supplied to make it rigid in any desired place. The painting is placed on an adjustable stand, and is coated with thin linseed oil previous to copying, in order to clear up the shadows, &c. A Steinheil lens is used, and is declared by the Messrs. Overbeck to be the best for flat surfaces. The exposure varies according to the intensity of the light. In the chemical manipulation of the negative, I saw no novelty except in one instance. Many of the copies are very large, and in making such it is very difficult to get a uniform thickness of collodion all over the plate. The Messrs. Overbeck first coat the plate in the usual way, and then turning it end for end, re-coat it, and thus have quite the same thickness of film all over the plate. This double coating of collodion also tends to keep the plate moist, which is a very essential thing in making the long exposure necessary when copying an oil painting. Plates thus treated will bear exposure at least two hours-a hint for those who have interiors, &c., to make.

The printing and mounting departments of Messrs. Overbeck were quite as extensive and complete as their copying-room, and everything was done with system, cleanliness, and care. A large portrait business is also connected with their other branch. But what interested me as much as anything else was, their machine for washing prints. I will describe it, with cuts, next month.

Now let me say a word or two about Dr. Liesegang himself. He not only edits and publishes one of the most valuable and influential photographic magazines—the *Photographisches Archiv*—in Europe, but also conducts the most extensive stock depot that I saw there. This latter is also more like

an American establishment than any I saw, inasmuch as a large stock of goods is kept on hand, so that the photographer can go there and get anything he wants. And that Dr. Liesegang's papyroxylin, is not all. gun-eotton, strontium-collodion, and chemieals, are also manufactured largely by him, besides his celebrated albumen paper, and first-rate photographic apparatus. And besides all this, with the farsightedness of a true Yankee merchant, he no sooner hears of a novelty in any market, than he orders it for stock in his own store. He sells largely of the American Optical Co.'s apparatus, Bigelow's backgrounds, and other novelties, and Benerman & Wilson's photographic publications. The Key to Bigelow's Album he has translated and published in German, French, and Italian, besides others of our works, and through him they go to Russia, India, Italy, Egypt, Africa, Asia, and all over Europe and the islands of the sea to which his trade reaches. I do not know of any one who does such a cosmopolitan trade as he, and surely his enterprise well entitles him to it. I had pleasure in calling his attention to many novelties advertised in the Philadelphia Photographer, and he at once sent orders abroad for them, being determined to enable himself to supply everything. He has not been in Dussseldorf quite a year, having removed there from Elberfeld. I was sorry to break away from his hospitality and from his lovely city.



At 8 P.M. I found myself rapidly moving "on to Berlin." I had hoped to secure a sleeping car, but there was none to secure. I therefore had to content myself with one-fourth the space in one of the close apartments of a "first-class" (?) European railway

The seats face each other, and the apartments hold eight persons. If you "see" the guard, you can have the space usually allotted to two persons, in which case, if you are of similar makeup to my own, you will have room to double up yourself into tolerable sleeping shape; but the ehances are that before "daylight doth appear," that your toes will have become entangled in the tresses of the lady who sleeps at your feet. If not, the fear of it will keep you half awake, and in your unrest, if you are a photographer, you will dream of stories of the iron-horse vs. the night-horse, until demons, whose bodies are bottled up with all sorts of diabolical chemicals, seem to fill the air in all sorts of horrid shapes, and perhaps that obstreperous one of fragrant odor, and many equivalents, will fumigate under your very nose, until you awaken in a cold chill. Such a rough night I had of it on my way from Dusseldorf to Berlin, and I was glad when daybreak came, and not very far distant I could see the city of Berlin. A few moments more and I felt that which all persons feel when they meet a good friend and true, for Dr. Vogel, our good friend, met me at the station, and a true German greeting followed. Then came several days of feasting upon the photographic and art treasures of Berlin.



A true German greeting followed.

A preliminary tramp took us through the quiet shades of the Thiergarten, up to the new and imposing Column of Vietory, through the Brandenburg gate, and down the beautiful Street Unter der Linden, passing the palaees of the Emperor and the Crown Prince, across the river Spree by means of the splendid bridge, until we came to the Museum. As I looked upon the freseos which adorn it, and then sauntered wonderingly among the various galleries of paintings, and statuary, and antiquities,

and terra-cotta, and what not of things artistic and tasteful, I thought, no wonder the Berlin photographers make good work. They would be disgraced if they did not, for here in this Museum is everything they need to cultivate them in every branch of æsthetics-everything to inspire feeling and everything to suggest the principles of art. Oh! for such an institution in this country, to which photographers, struck with fervor and thirst for more light, could make pilgrimages. If not the originals, here are easts of all the best marbles in the world. Magnificent paintings, wondrous in composition, and so much and so many, that months should be occupied in their study. Among the great attractions are the six mural paintings by Kaulbach, representing "The Fall of Babel," "The Prosperity of Greece," "Destruction of Jerusalem by Titus," "The Battle of the Huns," "Arrival of the Crusaders before Jerusalem under Godfrey de Bouillon," and the "Age of the Reformation." The figures are most perplexing in their number, larger than life, and the coloring and composition so grand, that one doubts that the hand of man could ever have created them.

Berlin has the appearance of being just what it is, namely, an intellectual city. Its academies and universities are celebrated, and the lover of art sees much in the streets and in the buildings to entertain and edify him. And while I took my share of its intellectual pleasures, I also paid my respects to the delectabilities of "Schnitzel," and more than frequently attended discussions pertaining to photography across a table covered with alkaline soda-wasser, &c., with hundreds of good-natured Germans about us



The old frau who drives shouts at them continuously.

enjoying their repasts. As to music, Berlin does not neglect to render it in the most

artistic style, and I enjoyed much of it. When tired of the interior one has but to go into the street and find enjoyment enough—living pictures, which appear quaint and queer to American eyes. Now it is a low, primitive milk cart, drawn by two great muscular dogs, who pull with a will, while the old frau who drives, shouts at them continuously or lashes them with her whip. Immediately after, in strong contrast with this interesting group, rumble the wheels of royalty in gergeous splendor, so that the streets are full of sights varying in interest.

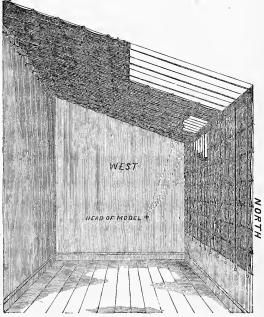
But now a little about photography in Berlin. The principal commission merchant here in our art is Mr. Romain Talbot, No. 11 Karl Strasse, who was for over twenty years located in Paris, until driven away by the Franco-German war. the stock business is conducted in a different way from ours. The dealer's stock is not large, but he receives orders for everything, and then purchases what is wanted from the various manufactories which abound in Berlin. Mr. Talbot is very popular here, and I owe him for many courtesies shown me while in Berlin. I shall never forget him, and wish I could do more for him. One of the great sights of Berlin is the chemical laboratory of Mr. E. Schering. Here nearly all the chemicals which are used by German and Continental photographers are manufactured, and of the best quality. But this great establishment is not confined to photography alone, as it produces all sorts of chemicals for medicine and the sciences at large. Many pleasant hours were devoted to the inspection of the various departments and the methods of distillation, dissolution, erystallization, boiling, erushing, grinding, baking, and what not, in all the stages of manufacture, from the crude material to the beautiful commercial product. Some very eccentric processes are followed in order to procure the desired results; and in all cases the utmost care and cleanliness are insisted upon. The various products are classified and kept stored in separate rooms. For example, the poisons are in one room, acids in another, alkalies in another, and so on, so that when they are weighed out to fill orders, the one cannot influence the other. In this way greater chemical purity is secured. The manufacture of various photographic chemicals and of gun-cotton was going on lively, and I wish I had space to tell you how some of the things you use are made. It would certainly aid in the more intelligent use of them.

Somehow or another, our good friend Dr. Vogel, President of the excellent Berlin Society for the Advancement of Photography, thought the good feeling existing between German and American photographers was sufficiently strong to warrant him in calling a special meeting of the society to enable the humble representative from America to meet the members. Accordingly, I had the great pleasure of meeting with some fifty of

the leading photographers of Berlin. I need not repeat the complimentary addresses that were made, further than to say that I was glad of the opportunity to tell our friends in Berlin how much they had taught us, and how gratefully we remembered them. As far back as 1865 the importation of "Berlin Cartes" began in this country, and they started a revolution for which I was glad to be able to assure our Berlin co-workers that we thanked them. Before then, the majority of us were content with lighting which showed neither purpose nor thought; with the most inartistic backgrounds, and the most frightful accessories. Our negatives either showed all the rugosities of the skin, or else the subject was overlighted in order to hide them. But when

these Berlin eartes came to us with their roundness, and their brilliancy, and their delicate play of half tones, and their artistic pose, we awakened out of sleep, and went at it to imitate them. The secret of retouching the negative was whispered into our ears from the same source, and the effect was unparalleled. I need not give the details. There was a revival which spread over the whole land, and gradually we worked up to the "Berlin Cartes," and even excelled them, until the Berliners had to look after their laurels,

and we were recognized as their rivals. Now an exchange exists. The evening I spent with the Berlin Society, much interest was expressed by the members in a lot of American photographs which had been sent them from New York. And although I am free to say now that the average American work is as good as that of the average Berlin productions, yet I am as free to say that Berlin stirred us up, and to her and her amiable and hospitable photographers be all the praise. Loeseher, and Petsch, and Milster, and Hartman, and Schaarwachter, and Quidde, the dead Grasshof and their coworkers, we should never forget; and be assured there is the very warmest kind of



feeling existing in Berlin for you all; and anything from America exeites the liveliest interest.

They look upon you as their greatest rivals, and rejoice to see you even equalling or excelling them. If you ever visit them you are sure of every courtesy being extended you, as was the fact in my ease. When I visited their galleries I found the same eordiality which greeted me at their Society. And what is strange to say, I found their work-rooms, and their skylights, and their reception-rooms very much the

same as our own, with the exception that a different language is spoken. I confess to a little disappointment on this score, for I had hoped to find many useful things to dot down in my memorandum-book for use in these views. On the contrary, however, I believe a posse of American photographers could go into the galleries of Berlin, and work them quite as easily as they could go to any strange place and work it. Loescher & Petsch's studio is a very pleasant one, with the top and side light facing the north, as shown in the drawing, and plenty of light; a garden of beautiful flowers being at the north of it. They practice the method of lighting shown, eonsiderably, but work at both ends in all parts of their light, adjusting their curtains accordingly. They use screens also and every other means necessary to secure the effect they desire. They employ most beautiful accessories, and all grades and styles of backgrounds, the latter being hung from rollers at the ceiling.

Mr. Hans Hartman has taken Mr. Petsch's place at the camera, the latter having forsaken photography for the more "expansive" (?) art of oil painting. The work of these gentlemen was awarded the highest honors at Vienna, and it deserved them.

Mr. Ernest Milster's studio has been described in these pages. He makes magnificent portrait work, and has an establishment for the copying of oil paintings, similar to that of the Messrs. Overbeck in Dusseldorf. Mr. Quidde is also engaged exclusively in this line. The rising young photographer of Berlin is Mr. Julius Schaarwachter, whose work is excellent.

Photography seems to thrive in Berlin, although there are bad photographers there as well as the best.

Dr. Vogel, as you all know, is their recognized leader, and a better one they eannot have. He is also professor of chemistry and physics in one of Berlin's oldest universities, and I visited his rooms there with much interest. He has most complete and convenient apparatus for his labors, but as I was there during vacation I could not see the practical workings of the institution. Photography is taught to many each year, and I only wish we had a place like it. Dr. Vogel is always alive to the interests of his

constituents. His nature is such that he cannot take an interest in anything unless he takes a great interest in it, and photography is his fascination. He is continually with and among the fraternity, and does not place himself so distant from them that they can never reach him. Thus he knows practically all that goes on, and knows it quickly. He works constantly, and although often opposed by a few whom nothing can satisfy, he always comes out first best. He works for the good of all, and not for a few selected pets, and that is why he is popular and beloved by all those for whom he labors. Long may he live!

GRISWOLD'S PHOTOGRAPHIC COMPOSITIONS.

Our readers will all remember the excellent and beautiful pictures of "Blowing Bubbles" and "The Hen's Nest," which have appeared in our magazine, by Mr. M. M. Griswold, and also that we have frequently alluded to his stereographic compositions of the same order and excellence.

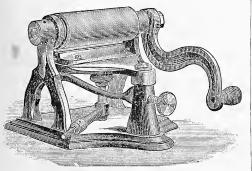
This being a branch of our art which can be largely cultivated, and enlarged, and made profitable, we have made an arrangement with Mr. Griswold for the use of his negatives, such as enables us to offer prints from them to our readers, as studies, at a fair price, and we now do so with the suggestion, that if they are purchased and studied, that they are sure to repay for the outlay largely. We should like to see more attention paid to this branch of photography, for it is improving, educating, and There are some twenty-seven profitable. of Mr. Griswold's stereographic compositions, and he will now and then increase the number. Other occupation has compelled him to suspend the publication of the subjects now ready, and, feeling that such excellent studies should not lie dormant when they could be made to do so much good, we have resurrected them, and opportunity is given to all to possess them. A full catalogue is given in the advertisement of them and the prices. There is a vein of sentiment or humor in each one which will make them attractive to everybody possessed of any soul.

Dealers will be supplied at fair rates, though the object is to keep the price down to the working photographer, that all may have an easy chance to obtain them.

We hope that a fair scattering of them will create a little revolution in the trade and perhaps make business a little better. The public want something new occasionally; why should not stereoscopic compositions be in turn this time?

ENTREKIN'S OSCILLATING ENAMELLER.

NEVER be contented with a good thing, even, if it can be made better. We are led to this thought by an examination of Mr. Entrekin's Oscillating Enameller and a comparison of it with other "burnishers" in the market. The great difficulty with other kinds has been that they would not work uniformly well, and that they would scratch more pictures than they improved. We found it impossible to use them for polishing the pictures in this magazine. But Mr. Entrekin claims to have overcome all these troubles by ingenious contrivances, all of which he has secured by patents, and



in the use of which he agrees to protect purchasers of his machines. The principal improvements in his enameller are, 1. A double movable wedge and spring playing under the burnisher, which raise and lower the latter equally from end to end, preventing it from "wabbling," and making it adjust itself to any thickness of card. 2. The burnisher itself is movable and removable. If an accident occurs to it, it can instantly be removed and a duplicate (which should al-

ways be on hand) put in its place, and the work goes on without the delay and expense entailed by having to send the whole machine to the shop for repairs. 3. The burnisher itself oscillates—moves from side to side—constantly with each turn of the crank, and thus absolutely prevents the scratching and destruction of the print. Mr. Entrekin says you cannot scratch a print with his burnisher. We give a cut of the machine, and now turn our readers over to its excellencies for their examination, and to the advertisement.

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues.

All remittances of back dues, and fees, and dues for new members should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Life Member.—J. Holyland, Baltimore, Maryland.

The Postal Card.—Every member of the National Photographic Association has been sent a statement of his account with the Treasury. It is very important that remittances be made at once. It is none too early to make arrangements for the Chicago Exhibition, but they cannot be made with an empty treasury. If you want the Association to continue, remit now.

Please read the article on another page on "The Financial Condition of the National Photographic Association."

To Forcign Photographers.—The Sixth Annual Exhibition of the National Photographic Association will be held in Chicago, Ill., beginning Tuesday, July 14th, 1874. Foreign photographers are invited as usual to contribute to the display, and the usual large gold medals will be awarded for the best exhibition of work from each foreign country. The arrangements are the same as last year. For further particulars, address the Permanent Secretary.

Information for home exhibitors will be

given in due season. The rules will be substantially as heretofore.

Contributions to the Debt Fund -

A. M. Collins, Son & Co, Phila.,	Pa.,	\$10	0	00
G. H. Loomis, Boston, Mass.,			2	50
J. Holyland, Baltimore, Md.,			1	00
C. H. Pease, Goshen, Ind., .			1	00
S. P. Gaugler, Bellevue, Ohio,				50
L. F. Reynard, Syracuse, N. Y.,			1	00
E. Decker, Cleveland, Ohio, .			1	00
F. L. Le Roy, Youngstown, Ohio,			1	00
G. H. Wood & Co., Towarda, Pa.,				50
E. W. Beckwith, Plymouth, Pa.,			1	00
A. S. Barber. Willimantic, Conn.,			2	0 0
J. C. Mills, Penn Yan, N. Y.,			5	0.0
R. Walzl, Baltimore, Md, .			8	00
W. Nims, Fort Edward, N. Y.,			3	00
L. V. Moulton, Beaver Dam, Wis.,			6	00
J. G. Stewart, Carlinville, Ill.,			1	00
F. A. Simonds, Chillicothe, Ohio,			8	00
F. M. Rood, Poultney, Vt., .			2	00
T. M. Moltz, West Fairview, Pa.,			5	00
A. Hall, Chicago, Ill			3	00
J. E. Rich, Charles City, Iowa,			1	00
J. C. Haring, Massillon, Ohio,			2	00
W. G. C Kimball, Concord, N. H.	,		2	00
Carson & Graham, Hillsdale, Mich	٠,		5	00
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OUR PICTURE.

WHEN in England we, of course, made a pilgrimage or two to the studio of Mr. H. P. Robinson (and his partner Mr. N. K. Cherrill), the well-known author of Pictorial Effect in Photography. We shall give our views of what we saw there presently, but meanwhile call your attention to a very important branch of photographic industry which is largely practiced by the gentlemen named, and to give you an example of their work from negatives, which they kindly made for us when we were there. We must first say that the subject is named " Preparing Spring Flowers for Market," and that our picture is copied from an original print, which is about 24 x 30. As a work of art the composition is nearly faultless. As an example of what taste and industry will do it is capital. How to make such work is fully described in his book by Mr. Robinson at length, but our space only allows us to make some extracts.

Combination printing, which is the branch we allude to, means, as you know, the making of prints from two or more negatives; the various parts being printed from the different negatives combined, or successively. "The most simple form of combination printing, and the one most easy of accomplishment and most in use by photographers, is that by which a natural sky is added to a landscape." And this form we would recommend to any one commencing this style of work. In most landscape negatives, larger than stereoscopic, the sky is usually a blank, from the fact that the time of exposure for the landscape is necessarily so much longer than that required for the sky that flying clouds move away, leaving no impression. Now to remedy this a separate negative is made of the clouds, at any time when they are favorable for photographing, and with an almost instantaneous exposure they are secured with the most perfect detail. To print in a sky, the landscape is printed first, masking the sky, if necessary, so that it may be left white. If a mask is used care must be taken to avoid printing a sharp line. This may be done by keeping the edge of the mask separated from the negative, producing the same effect as in vignetting. After printing the landscape the cloud negative is put in the place of the other, and the sky printed by masking the landscape in the same manner as was done with the sky. A little practice will, of course, be necessary to work successfully, but when the simpler form is once mastered, then something more complicated may be attempted. Panoramic landscapes, with cloud effects, may be produced from several different negatives; and when the methods of working have become well understood, something more difficult still may be attempted; such a picture, for instance, as our illustration. This is a capital study; the lighting particularly may be considered in connection with our art studies on another page.

We will not attempt to dissect this picture, but leave that for the student to do in connection with the following copious extracts on combination printing, which we make from Mr. Robinson's excellent work. He says:

" Perhaps the greatest use to which combination printing is now put is in the production of portraits with natural landscape backgrounds. Many beautiful pietures, chiefly cabinets and cards, have been done in this way by several photographers. The easiest kind of figure for a first attempt would be a three-quarter length of a lady, because you would then get rid of the foreground, and have to confine your attention to the upper part of the figure and the distance. Pictures of this kind have a very pleasing effect. In the figure negative, everything should be stopped out, with the exception of the figure, with black varnish; this should be done on the back of the glass when practicable, which produces a softer join; but for delicate parts-such as down the face-where the joins must be very close, and do not admit of anything approaching to vignetting, the varnish must be applied on the front. A much better effect than painting out the background of the figure negative is obtained by taking the figure with a white or very light screen behind it; this plan allows sufficient light to pass through the background to give an agreeable atmospheric tint to the distant landscape; and stopping out should only be resorted to when the background is too dark, or when stains or blemishes occur, that would injure the effect. An impression must now be taken which is not to be toned or fixed. Cut out the figure, and lay it, face downwards, on the landscape negative in the position you wish it to occupy in the finished print. It may be fixed in its position by gumming the corners near the lower edge of the plate. It is now ready for printing. It is usually found most convenient to print the figure negative first. When this has been done, the print must be laid down on the landscape negative so that the figure exactly covers the place prepared for it by the cut-out mask. When printed, the picture should be carefully examined, to see if the joins may be improved or made less visible. It will be found that, in many places, the effect can be improved and the junctions made more perfect, especially where a light comes against a darksuch as a distant landscape against the dark part of a dress—by tearing away the edge of the mask covering the dark, and supplying its place by touches of black varnish at the back of the negative; this, in printing, will cause the line to be less defined, and the edges to soften into each other. If the background of the figure negative has been painted out, the sky will be represented by white paper; and as white paper skies are neither natural nor pleasing, it will be advisable to sun it down.

"If a full-length figure be desired, it will be necessary to photograph the ground with the figure, as it is almost impossible to make the shadow of a figure match the ground on which it stands in any other way. This may be done either out of doors or in the studio. The figure taken out of doors would, perhaps, to the critical eye, have the most natural effect, but this cannot always be done, neither can it be, in many respects, done so well. The light is more unmanageable out of doors, and the difficulty arising from the effect of wind on the dress is very serious. A slip of natural foreground is easily made up in the studio; the error to be avoided is the making too much of it. The simpler a foreground is in this case, the better will be the effect.

"The composition of a group should next engage the student's attention. In making a photograph of a large group, as many figures as possible should be obtained in each negative, and the position of the joins so contrived that they shall come in places where they will be least noticed, if seen at all. It will be found convenient to make a sketch in pencil or charcoal of the composition before the photograph is commenced. The technical working out of a large group is the same as for a single figure; it is, therefore, not necessary to repeat the details."

Mr. Robinson now alludes to an example in his book similar in style to our picture, and then adds what may equally as well apply to it, as follows:

"A small rough sketch was first made of the idea, irrespective of any considerations of the possibility of its being carried out. Other small sketches were then made, modifying the subject to suit the figures available as models, and the scenery accessible, without very much going out of the way to find it. From these rough sketches a more elaborate sketch of the composition, pretty much as it stands, and of the same size, was made, the arrangement being divided so that the different portions may come on 15 by 12 plates, and that the junctions may come in unimportant places, easy to join, but not easy to be detected afterwards. The separate negatives were then taken.

"At first sight, it will appear difficult to place the partly-printed pietures in the proper place on the corresponding negative. There are many ways of doing this, either of which may be chosen to suit the subject. Sometimes a needle may be run through some part of the print, the point being allowed to rest on the corresponding part of the second negative. The print will then fall in its place at that point. Some other point has then to be found at a distance from the first; this may be done by turning up the paper to any known mark on the negative, and allowing the print to fall upon it; if the two separate points fall on the right places, all the others must be correct. Another way of joining the prints from the separate negatives is by placing a candle or lamp under the glass of the printing-frame-practically, to use a glass table -and throwing a light through the negative and paper, the join can then be seen through. But the best method is to make register marks on the negatives. This is done in the following manner. We will suppose that we wish to print a figure with a landscape background from two negatives, the foreground having been taken with the figure. At the two bottom corners of the figure negative make two marks with black varnish, thus __; these, of course, will print white in the picture. A proof is now taken, and the outline of the figure cut out accurately. Where the foreground and background join, the paper may be torn across, and the edges afterwards vignetted with black varnish on the back of the negatives. This mark is now fitted in its place on the landscape negative. Another print is now taken of the figure negative, and the white corner marks cut away very accurately with a pair of scissors. The print is now carefully applied to the landscape nega-

tive, so that the mark entirely covers those parts of the print already finished. The landscape is then printed in. Before, however, it is removed from the printing-frame, . if, on partial examination, the joins appear to be perfect, two lead-pencil or black varnish marks are made on the mark round the cut-out corners at the bottom of the print. After the first successful proof there is no need for any measurement or fitting to get the two parts of the picture to join perfectly; all that is necessary is, merely to cut out the little white marks, and fit the corners to the corresponding marks on the mask; and there is no need to look if the joins coincide at other places, because, if two points are right, it follows that all must be so. This method can be applied in a variety of ways to suit different circumstances.

"There are one or two things to consider briefly before concluding this subject.

"It is true that combination printing, allowing, as it does, much greater liberty to the photographer, and much greater facilities for representing the truth of nature, also admits, from these very facts, of a wide latitude for abuse; but the photographer must accept the conditions at his own peril. If he find that he is not sufficiently advanced in knowledge of art, and has not sufficient reverence for nature, to allow him to make use of these liberties, let him put on his fetters again, and confine himself to one plate. It is certain (and this I will put in italics, to impress it more strongly on the memory) that a photograph produced by combination printing must be deeply studied in every particular, so that no departure from the truth of nature shall be discovered by the closest scrutiny. No two things must occur in one picture that cannot happen in nature at the same time. If a sky is added to a landscape, the light must fall on the clouds and on the earth from the same source and in the same direction. This is a matter that should not be done by judgment alone, but by judgment guided by observation of nature. Effects are often seen, especially in cloud land, very puzzling to the ealm reasoner when he sees them in a picture, but these are the effects that are often best worth preserving, and which should never be negOur prints were made by Mr. William H. Rhoads, on the excellent brand of paper recently introduced by the Albion Albumenizing Company of London, for whom Wilson, Hood & Co., Philadelphia, are the agents. Mr. Rhoads speaks very highly of the excellencies of this paper, and the beauty of the prints tell even more than that.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

Staining Collodion Films.—The idea of staining collodion films is an old one, having been repeatedly proposed by experimentalists for different purposes. If I remember rightly it was proposed in America some ten or a dozen years ago, to tint collodion with saffron or turmeric, as an easy method of securing greater intensity in the negative, and some years later it was suggested that saturating the film of a very hard negative with a tint of anilin blue, would probably secure greater softness in the prints. The use of a varnish of a diactinic color has been found useful in giving additional printing vigor to weak negatives. At the first glance it scarcely seems reasonable to suppose that the application of a yellow varnish all over the negative should give it any additional intensity, inasmnch as the yellow tint of the varnish should relax the passage of light equally all over the lights and shadows of the image. apart from the fact that the slow printing induced in itself conduces to vigor, there is really an actual increase of intensity or contrast to be gained by using a varnish which will communicate a yellow dye to the film. A glance at the actual condition will show how this happens. All spirit varnishes actually permeate the collodion film, leaving a layer of resin not simply on the surface, but permeating the texture of the collodion, and the dense portions of the image being so much thicker than the shadows, act in some degree like bibulous paper; they retain a greater proportion of the resin and of the coloring matter than the shadows. The result is that the depth of the yellow tint in the lights, where a greater body of it has been absorbed, is considerably greater than that of the shadows, and so an actual increase of contrast is secured. But there appears to be a probability of a still greater and more important purpose for the practice of tinting or staining the collodion film. Our friend Dr. Vogel has doubtless communicated to you his important discovery, of rendering a film as sensitive to the yellow as to the blue ray by first applying to the film a substance which will absorb the yellow ray. Here is a most important field for experiment in this direction, which promises to well repay the investigator.

Another valuable use for stained films was suggested some time ago, by a skilful English amateur, Mr. Henry Cooper, who proposed this plan as a means of superseding the necessity for backing dry plates with a nonactinic pigment. Your readers are familiar with the fact that some dry plates having an exceedingly transparent film, are subject to the defect known as "blurring," the result of the light passing through the transparent film, and being reflected back so as to form a blurred image. The application of a yellow pigment at the back of the plate was found to check this defect; but it was a troublesome remedy. Tinting the film with a nonactinic color, is found to check the action even more efficiently, and without anything like the same inconvenience as the pigment involves. In a recent communication, after speaking of its use with dry plates, Mr. Cooper says:

"Of the value of the method for a dry process there cannot, therefore, be a doubt, and I have been constantly assailed with the question, 'Cannot you use it also in the wet process, or will it injure the bath, or collodion, or make the plates slower?' I am now in a position to answer these three queries in a satisfactory manner.

"Using the preparation of dye which I am about to advise, I do not find any practical difference in the sensitiveness of the film, and I am also glad to say that a very much larger quantity may be used without injuring either the bath or the collodion. In some very trying cases it is advisable to use a deeply-stained collodion, and give the little longer exposure which such a course entails."

"I need not take up space by describing the subjects where I should advocate a larger dose of dye, as each worker must be guided by individual experience; but may remark, in passing, I have found the method invaluable in photographing skies, interiors, and subjects where there are great contrasts of light and shade in juxtaposition. To more thoroughly test the action of the dye on the nitrate of silver bath, I added a large dose of the alcoholic solution to forty ounces of bath. The silver solution was powerfully colored, and a large proportion of dye was After standing for a week precipitated. the bath was filtered, and a plate tried. The film was deeply stained, but gave, upon exposure and development, a brilliant, clean, and foreible image. Even after keeping for two months this colored bath was not injured by the dye, the only difference perceivable being a diminution in color, each plate abstracting a goodly quantity of dye. After this conclusive proof of the harmlessness of the dye I was then using, I did not hesitate to sensitize plates coated with stained collodion in any of my baths, and I never regretted The anilin dye which I have doing so. found most practically useful is the one called rosanilin, and for the sample I used

last summer and autumn I was indebted to the courtesy of Colonel Wortley, who kindly forwarded it to me. The most convenient way of using it is to make up a solution in absolute alcohol of ten grains to the ounce. The preparation to be added to the collodion is about five minims of this solution to each ounce.

"When the negative is fixed the film will still be of a pinkish tint, which may either be removed by rinsing the plate with a little common methylated alcohol, or it may be allowed to remain, as it will do no harm in printing, being even advantageous with a thin, delicate negative. If it be determined to allow the dye to remain in the film, the negative must be coated before drying with a solution of gum, albumen, or other substance, to prevent the varnish from dissolving out the rosanilin.

"It would be a great convenience if some photographic chemist would send out an alcoholic solution of rosanilin, as the dye itself is awkward stuff to handle, and I venture to ask the trade to oblige us in this matter. Until it can be procured in solution my advice is, do not buy more than you want to dissolve, and put it into the requisite amount of alcohol at once."

Editor's Table.

HIMES'S STEREOGRAPH BOOK.—We have made up some stereograph books after the plan described by Professor Himes in our January number, and have them ready for sale. Sample copies, fifty cents. Please refer to the advertisement.

Items of News.—The Philadelphin Sketch Club issue a monthly "Portfolio" of photo-lithographs of their sketches. The initiatory number is before us, and promises well, as it contains several very good things.—Dr. J. Fletcher Woodward advertises his patents for a photographic trunk and a dark-tent for sale, owing to the misfortune which has befallen him of looking so much like some one else, that he has been arrested and imprisoned for murder. Please read his advertise ment.—Messrs. R. Newell & Son have shown us some capital testimonials from photographers to the value of their cement and photographic ware. Send for one.—The Philadelphia Age, in alluding

to the Philadelphia Photographer, says: "All the latest inventions and discoveries in the art photographical receive prompt notice in this periodical, and we do not see how any one, even incidentally connected with the trade, can afford to be without it." It tells the truth .- Of Dr. Vogel's Photographer's Reference-Book, Mr. W. Heighway writes: "I think it is calculated to be of great use to many workers in our profession as a helpful book in time of doubt and difficulty." -Several correspondents ask if we "know anything about the 'Preparation for Negatives,' advertised by C. F. Cook." We answer that we do not. How can any varnish "enable you to retouch your negatives in half the usual time?" -Mr. T. H. Johnson, of the firm of D. H. Anderson & Co., Richmond, Va., recently accompanied Professor Donaldson in a balloon to ----Mr. D. J. Ryan, Savannah, Ga, has occupied his new and beautiful store, where he will be

glad to see all his friends, old and new, and to fill their orders for stock.—Mr. David Bendann has associated himself with Mr. James Fryer, at No. 10 North Charles Street, Baltimore, where they have opened a fine art gallery for the sale of all objects of art.

THE ENGLISH YEAR-BOOKS.—The Year-Book of Photography, edited by Mr. G. Wharton Simpson, is at hand for 1874, larger than ever, and full of very useful information. The same may be said of the British Journal Almanac, edited by Mr. J. Trail Taylor. We have a stock of both. Mailed for fifty cents each.

An Impostor.—We learn that a man claiming to be the brother of Mr. John G. Hood, of Wilson, Hood & Co., is defrauding photographers out West. Mr. Hood desires us to say that he has but one brother, who is in business in this city, and that photographers should not credit the gentleman who claims to be his relative.

The Right Way to Look at it —Mr. Wm. Bryan, Russellville, Ky., says: "I have just received the money for three 4.4 prints, and in sending you the money for the *Philadelphia Photographer* for 1874, I feel that it will only cost me a few cents, and I will have twelve good pictures and much valuable knowledge in return."

We have received a copy of the Ninth Annual Catalogue of the Officers and Students, with a statement of the course of instruction of the Massachusetts Institute of Technology. We rejoice to see the prosperity of such institutions.

"Prang's Natural History Series," is the name given to a series of heautiful chromos, illustrating the works of nature. They already include several families in zoology, plants, flowers, vegetables, &c., and are very instructive when studied with the letter press which accompanies them. We bind an inset concerning them in this number, to which please refer.

MR. J. F. RYDER, of Cleveland, Ohio, called upon us a few days ago as full of "pluck" (1 and 2) as ever, the best evidence of which is that he is willing to be Local Secretary for the National Photographic Association again if the convention wishes to go to Cleveland.

THE LENS is a Quarterly Journal of Microscopy and the Allied Natural Sciences, published in Chicago. The December number is before us, and contains a beautiful Woodbury type, from one of Dr. Woodward's negatives.

DR. VOGEL'S PHOTOGRAPHERS' REFERENCE-BOOK is continually winning new laurels. The

London Photographic Journal says, concerning it: "Dr. Herman Vogel, of Berlin, the worthy President of the Society for the Advancement of Photography in that city, is too well known as a sound photographic chemist to require an introduction at our hands. His Reference-Book and Dictionary is a handy volume, which will be found especially useful to the working operator. The information being alphabetically arranged, is always convenient to hand; and his advice as regards the preparation of baths, developers, &c., as also his rules how to avoid failures, may be relied upon with a quiet conscience. The most recent processes, both wet and dry, are described in the volume."

BIGELOW'S ALBUM OF LIGHTING AND POSING seems to go even better in Europe than it does at home. The Key has been translated into German, French, and Italian. All should study it.

THE attention of photographers is requested by Messrs. A. M. Collins, Son & Co. to their new group mounts, two samples of designs for which will be found among our advertising sheets. They have shown us a number of very pretty styles.

Pictures Received.—Since our last issue we have received quite a number of specimens of various styles of work, and some of them we find so superior, that it is with pleasure we notice them, and wish that all might have the privilege of studying them, and be stimulated to strive for the same degree of excellence. Several cabinets from Mr. F. Gutekunst, of this city, are beautiful specimens of portraiture; one particularly of a little girl in jaunty hat and bare arms, is a perfect gem. The posing, the lighting, the unaffected expression, all are admirable, and show that the artist is still in the foremost rank.

From Mr. N. S. Hardy, of Boston, several cabinets, all of a very high order of merit. These are of children, and for exquisite delicacy in light and shade, and perfect rendering of white drapery, are difficult to excel.

From Mr. II. Rocher, Chicago, some beautiful composition cabinets, showing fine artistic arrangement, and judicious selection of accessories.

From Mr. H. L. Bingham, San Antonio, Texas, several cabinets. Although in a remote section of the country, Mr. Bingham is turning out some fine work. Cabinets are also received from Messrs. Bradley & Rulofson, San Francisco. and Mr. Milton F. Carter, of Worcester, Mass., showing fine work.

A Victoria card from R. Goebel, St. Charles, Mo., illustrates a scene of destruction—a railroad train having been precipitated from a bridge by the breaking of an axle of the tender.

From Messrs. Souder & Nowell, this city, we have a fine carte de visite portrait of T. S. Arthur, a name familiar to almost every child in the land.

Cartes de visite have also been received from Messrs. S. T. Bryan, Young America, Ill.; J. B. Medlar, Jefferson, Wis.; Davis Bros., Portsmouth, N. H., and E. K. Abrams & Co, Brownsville, Pa. Stereos have been received of Hoosac Tunnel and vicinity, from Messrs. Russell & Stone, Boston. Of the labors of the sturdy lumbermen of Michigan, being winter views in the woods and on the log-driving streams, by W. C. Cain, Alpena, Mich., and a series of views, mostly of Lake George scenery, from S. R. Stoddard, Glen's Falls, N. Y. Many of these are fine specimens of taste and skill in choosing the subject and managing the light.

WATKINS'S STEREOS .- The finest lot of stereos we have had the pleasure of examining for some time, came to us a few days ago from Mr. C. E. Watkins, San Francisco. These comprise views on the Pacific Railroad, Yosemite Valley, Mt Shasta, Groups of Indians, Capt. Jack's retreats, Pacific Coast, &3. We have selected some of the best subjects, and will notice them briefly; "View on the Merced, Yosemite Valley;" this is beautiful in light and composition. "Mt. Shasta, view from the Northeast, " and "Glacier on Mt. Shasta, Siskiyou Co., Cal.;" these remind one of the wonderful Swiss and Alpine views, and bring before us scenery that many are not aware exists in America. On the Pacific Railroad we have "Truckee River below Truckee Station;" "Summit Tunnel before completion; Altitude, 7042 feet." "The Devil's Slide," Weber Canyon, Utah; a most singular-looking formation of rock on the mountain side; and "Bloomer Cut, bird's-eye view." "At the Geysers," is a picture of a happy-looking little miss, and beside her a young pet deer. It might be called the two dears. "Witches Caldron, Geysers." We can almost imagine we see the three weird spirits circling around and chanting their monotonous song:

> "Bubble, bubble, toil and trouble, Fire burn and caldron bubble."

"Steamboat Geyser;" Devil's Canyon;" Devil's Teakettle;" "In the Devil's Canyon," and the "Devil's Canyon, view looking down the canyon." This last is a magnificent view, and inspires no terrors, as the evil name might indicate. In all these Geyser views, the seething vapor continually boiling from the earth, might indicate that Vulcan had set up a foundry down below, with steam engines and modern machinery. "View of the spot where Gen. E. R.

S. Canby and the Peace Commissioners were murdered by the Modocs." "Captain Jack's Cave; " Captain Jack's Stronghold;" " Lava Bed, showing Soldier's Cemetery;" "Group of Warm Spring Indians;" "At the Rancherio, Mendocino County, California." This is a picture of an Indian encampment, the principal figure in which is a little chubby Indian baby, sitting on a mat on the ground, and one hand resting on his basket cradle. He sits perfectly still, looks directly at you, and what shows of his form above the basket indicates that his entire suit of baby clothes consists of an ornament like a locket on his neck, and a bracelet on his arm. A fine piece of bronze statuary. "A Piute Chief," is a good picture of an Indian. "The Willamette Falls, Oregon" "Rooster Rock, Columbia River." "The Oldest Inhabitant of the Farallon Islands," is not excelled by anything in York's collection from the Zoological Gardens. "Young Gull presenting his Bill, the latest thing out." "Gull, Shags, and Murr, Farallon Islands, Pacific Ocean," "Sea Lions, Farallon Islands,: "At Woodward's Gardens, San Francisco," "View of the City of San Francisco." These views have evidently been chosen with a great deal of care and judgment. They are artistic in treatment, and some of them indicate indomitable energy and perseverance to secure them. Such work assures us that nature will not go unrepresented, even in her most hidden recesses or giddy heights.

MESSRS. Long & SMITH, Quincy, Ill., desire us to call attention to their advertisement of a gallery for sale, which they assure us is a most desirable one. With respect to Mr. Long's bathwarmer, they write us that one of their customers says: "Accept my hearty thanks for the cut of the bath-warmer. It is splendid. I would not be without it for fifty dollars, and it did not cost me fifty cents."

MR. J. PITCHER SPOONER, Stockton, Cal., sends a lot of cards, Victorias and cabinets, showing throughout the evidences of a live. thinking, progressive photographer being at the helm in his photographic craft. Mr. Spooner is one of the livest and best photographers on the Pacific coast. Here is an evidence of it. He says: "I will be one of eighty to give \$50 each to the treasury of the National Photographic Association to put it beyond the possibility of ever getting into debt again. It has done me great good, and it must not go down."

DR. VOGEL'S German letter and Mr. Lacan's French correspondence did not reach us until too late for insertion this month.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stockdealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23rd to secure insertion. Advertisers will please not ask us for recommendations. ** The cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

PROTO. CAR FOR SALE.—First-class, and well accounted. For terms and description, address E. W. BLAKE, Phillipsburg, N. J.

For Sale.—The finest, most pleasant, and most completely fitted gallery in New England. Established nearly fifteen years. Population of town, eighteen to twenty thousand; splendid back country and surrounded by large factory villages. Satisfactory reasons for selling. Address

Photographer,

Lock Box 1654, Norwich, Conn.

Criswold's Stereoscopic Compositions. Read advt.

For Sale.—The subscriber offers for sale his gallery in the city of Marshall, Iowa, for cash only; doing the largest business of any gallery in Central Iowa. The leading gallery in the city, and only one other gallery. Competition not formidable. Will be sold at a bargain, if sold within thirty days. Full particulars on application, including diagram of gallery. Do not write unless you mean business. If not sold within thirty days, will want a first-class operator to take an interest in a business of \$400 per month.

Marshall, Marshall Co., Iowa.

Something that you want. See advt. of the Rapid Photo. Washer.

BOSTON GALLERY FOR SALE .- The constant increase of Mrs. Foss' business makes an especial agent necessary, and I shall be compelled to sell my place to attend to it. My studio is 14 x 38 feet, with a pure north, side, and top light. I have the best mammoth tube box and stand in Boston. A new, 24-inch press, cast steel (nickeled) rollers. Will match my card and cob tube with anybody. Solar camera, and everything for a first-class business. Dark-room, 10 x 14 feet, 11 feet high, ventilated. Studio, artist's, reception, and work-rooms all on one floor, up two flights only. Cheap rent, splendid location, being opposite the world-renowned Boston Commons. Lease, good trade, best prices. Possession given at once, reserving the privilege to finish college and other work engaged.

E. J. Foss,

1711 Tremont St., Boston.

FOR SALE.—A photographic car; the best one I ever saw, built to my order one and a half years ago. Has revolving light, also large side light; works splendid; furnished with everything necessary, and first-class. My health has failed, and I must sell to change climate. For particulars, address soon, D. R. JUDKINS,

Streator, La Salle Co., Ill.

For Sale.—At a great sacrifice, my patents on photographers' tent and trunk, at \$1200; also, my entire stock, apparatus, and fixtures of gallery at McMinnville, Tenn. Gallery for rent at \$15 per month; no opposition. Being forced from my home and business and imprisoned, is my reason for this offer. Address

Dr. J. FLETCH. WOODWARD, 27 N. Front St., Nashville, Tenn.

Wanted.—An artist to finish photographs in oil and India-ink. A salary paid, or an interest in the business. Situation permanent and pleasant. A photographer also needed; must be first-class. References given and required. Address

WILLIAMS, Photographer, Box 519, Houston, Texas.

Griswold's Stereoscopic Compositions. Read advt.

For Sale.—In a live town of eight thousand inhabitants, a gallery supplied with Dallmeyer tubes and other things to match; is in central location, up one flight of stairs. The town is a railroad centre and is growing fast. It is a good chance for a live artist who wishes to "go West." Any one who means business will receive full information by applying to

Long & Smith,
Dealers in Photographic Stock, Quincy, Ill.

GALLERY FOR SALE.—In a live town of three thousand inhabitants, no opposition within thirty miles. Good rooms, fine north side and skylights, and doing a good business. Price low, terms easy. For particulars address

"PHOTOGRAPHER,"
P.O. Box 142, Shelbina, Mo.

For Sale.—A photographic gallery in one of the most desirable business localities in the city of Philadelphia. For further particulars, address "Art,"

Office Philadelphia Photographer.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1874, \$4.50.

For Sale.—A nice little gallery in a town of fifteen hundred inhabitants; good country; no opposition within twelve miles. Gallery 28 x 16 feet; good instruments, one 4-4 Voigtlander lense, one 1-4 same make, two 1-4 Darlot. Price, \$500.

Address R. M. Denham, P.O. Box 220, St. Clairsville, Ohio.

For Sale.—A newly fitted up ferrotype gallery, in the city of Newburgh, on the Hudson; over twenty thousand inhabitants; low rent and good business. A good opening for a man to start the photograph business with the ferrotype trade. For particulars, call or address

"F. H. B.," P.O. Box 717, Newburgh, N. Y.

Don't soak your prints several hours and damage their brilliancy, but get the Rapid Photo. Washer.

For Sale.—Brady's National Gallery, 627 Pennsylvania Avenue, Washington, D.C., with twenty thousand negatives, and the largest political and historical collection in the country. Established twenty years; always the first gallery in the capitol and now doing a good business. A half interest or the whole will be sold cheap to close a copartnership.

FOR SALE.—One of the finest galleries in the State of Indiana, furnished with all the latest improvements in instruments, accessories, &c. Rooms for residence attached. This gallery is situated in a city of over 12,000 inhabitants, and doing a splendid business. For particulars, apply to

P. SMITH & Co.,

No. 121 West Fifth Street, Cincinnati, Ohio.

Griswold's Stereoscopic Compositions. Read advt.

FOR SALE.—A photograph gallery in a thriving manufacturing town of five thousand inhabitants. Established ten years. No opposition within ten miles. Good trade; good prices; plenty of room; low rent; large skylight; all very convenient. Rare chance for a small capital. Address WM. L. TEUSH,

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FOR SALE.—Owing to the death of Mr. H. Lazier, the executors of his estate will sell the newly fitted up photographic gallery, situated on the best street in the City of Syracuse, N. Y.; up one flight of stairs and all on one floor. This gallery is in complete running order and will be sold at half its value, with a long lease if desired.

Address Mrs. H. LAZIER,

118 West Genesee St., Syracuse, N.Y.

Wanted.—About the first of April. A good operator, one who has had some experience in viewing preferred. No dissipated man need apply. Address, stating terms, &c.,

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Lock Box 16, Parkersburg, Va.

PHOTOGRAPH GALLERY FOR SALE at a bargain. Only one in town. Best light in southern Michigan. Good lenses (Ross and H. B. & H.) Plenty of water, large dark-room; in fact the gallery needs but to be seen to be appreciated. Will sell contents of gallery and give lease, or, if preferred, will dispose of the building. Address J.H.

Box 94, Jonesville, Hillsdale Co., Mich.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition.

Wanted.—By first of April, 1874, an operator and poser, must be capable of doing first-class work; to one that will suit, steady employment and good salary is offered. Must come well recommended. Address, with photograph of self,

Brown & Higgins,

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For Sale.—One of the most prosperous galleries in New York State. Doing the best business and the best work in the city where located. Very best reason given for selling. A bargain as to price will be given. Address

"NEW YORK,"
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JACOBY has a clear patent on his printingframe, and it does not infringe on the Mezzotint patent. Parties reporting the same to injure the sale of his frame had better look out. Any one buying them, can use them without fear of any one.

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VOIGTLANDER & SON LENSES.

Ryder's Art Gallery, 239 Superior St., Cleveland, Ohio, Dec. 18, 1872.

Benj. French & Co.

Dear Sirs:—Twenty-four years ago I bought and commenced using my first Voigtlander Lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good.

Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before.

Yours, truly,

J. F. RYDER.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1874, \$4.50.

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OFFICE OF WILSON, HOOD & Co., Dealers in Photographic Requisites, Frames, Stereoscopes, and Views,

No. 822 ARCH STREET,

PHILADELPHIA, September 20, 1873. We have pleasure of announcing that we have in stock a small lot of Albumen Paper of the celebrated manufacture of the Albion Albumenizing Co., of London, England.

Following are colors, quality, and price: White Saxe,per ream, \$34 00 " 34 00 Blue 34 00 Pink 33 00 White Rives, Blue " 33 00 66 33 00

We have had it well tried and can advise our customers to purchase.

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Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. EMMONS, Baltimore, Md.

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"I am using and like them very much thus far."-A. MARSHALL, Boston. "A sensible improvement."-GEO. S. COOK, Charleston, S. C.

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(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

We cannot have letters directed to our care unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

As operator, india ink worker, and negative etoucher. Address J. Frank Uhl, Millersburg, Ohio.

By an operator of six years' experience; is up to the times. References given and samples sent. Address Geo. A. Ferris, Rochester, Ind.

By a young man who is thoroughly practical in all branches of the art. Would run a good gallery on salary or shares. Is willing to come on trial until his employer is satisfied of his ability. Address Photo. Artist, Houston, Ohio.

In a first-class gallery, as assistant operator, by a young man of five years' experience in the operating-room, and a constant reader of the Philadelphia Photographer. Address T. M. Swem, Shelbina, Mo.

By a first-class operator who has worked in many of the largest European photographic ateliers, and speaks fluently different languages, a good and permanent situation. Please address M. Lamberg, Berlin, Friedrich-Strasse 104a.

By a lady of good address, a situation in a gallery to take charge of the reception-room and printing; has had two years' experience. Address Box 865, Galesburg, Ills.

By a first-class hand from Chicago, as retouch-Had three years' experience, and can do the finest mezzo-grain retouch. One who thoroughly understands how and where to work. Can also do good ink and water color work. Address Box 255, Angora, Ind.

As first-class printer and toner, or assistant operator or view artist. Address Artist, Box 93, Providence, R. I.

By a photographer of experience, in some first-class establishment; no objection to going south. Address F. P. Mobsby, 75 North Clark Street, Chicago, Ills.

By a photographer experienced in all branches, or would rent a good gallery in one of the southern states (Alabama or Georgia preferred), with privilege of buying. Address Photographer, Morrisville, Madison Co., N. Y.

In Philadelphia, by an experienced operator and retoucher. Could take charge of a gallery if required. Address F. R. Thornbery, 832 Dickinson Street, Richmond, Philadelphia.

As a good negative retoucher. Address Miss L. Benton, No. 218 19th Street, South Brooklyn, L. I., N. Y.

A situation in some good gallery, as assistant operator, or printer and toner. Two years' experience in conducting a gallery. Good references given. Address R. M. Denham, Box 220, St. Clairsville, Ohio.

A practical photographer of 16 years' experience in all branches of the business would like to connect himself with some enterprising party at some principal watering place during the summer; would prefer taking an interest; can furnish instruments if desired. Address C. H. Hall, Amenia, N. Y.

In a first-class gallery, as retoucher or printer and assistant operator; can do first-class work at retouching. Good references given. Address H. I. Hills, Skaneateles, Onondaga Co., N. Y.

By a young man as general assistant in a gallery; has had experience in the different bran-Address J. H. Tymesen, Lodi, Seneca Co., N. Y.

By an operator of 10 years' experience. Best of reference given. Address Samuel W. Clark, Boston, Mass.

As retoucher in a first-class gallery. Samples of work if required. Address A. F. Terry, Washington Court House, Ohio.

The Rapid Photo. Washer is a perfect success, and it is something that has long been needed.

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A New Forest Background. Very peculiar and effective. Introduced by Bogardus, N. Y.

A Rich Interior, with elaborate tapestry on walls. Introduced by Moran, N. Y. See other advertisement.

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SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary, Boston.

Photographic Section of the American Insti-tute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue

German Photographic Society, New York.—At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N. Y.—Second Monday in each month. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary, Brooklyn.

Maryland Photographic Association, Balti-more.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N. H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Society of Philadelphia.—At No. 520 Walnut Street, third floor, first Wednesday of each month. J. C. Browne, President; E. Wallace, Jr., Secretary, 1130 Spruce Street.

Pennsylvania Photographic Association, Philadelphia.—At the galleries of the members. H. Phillips, President; R. J. Chute, Secretary, Office Philadelphia Photographer.

Photographic Association of the District of Columbia, Washington, D. C.-E. J. Pullman, President; C. M. Bell, Secretary, 459 Pennsylvania Ave., Washington. First Tuesday, monthly.

Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

Photographic Association of Western Illinois .-At Galesburg, first Wednesday of October, January, April, and July. S. T. Bryan, President; J. F. Barker, Secretary, Galesburg.

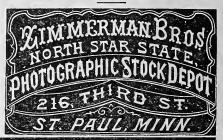
Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednes-

day evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State

Chicago Photographic Institute, Chicago.— 1st Monday, monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Buffalo Photographic Association .- At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, Sec'y.

Griswold's Stereoscopic Compositions. Read advt.



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These colors have become very popular in Germany and France (where they have obtained the highest recommendations), on account of their extraordinary brilliancy, eveness, and easy application. They can be used on Albumen Paper, and are without doubt the best that have been offered to the public. The Colors are put up in boxes of 6, 12, and 18.

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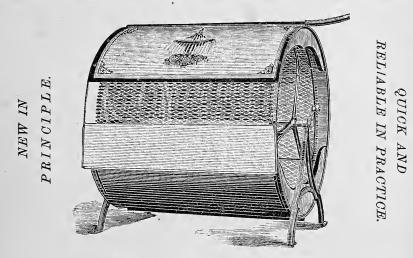
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Instead of soaking the Prints it applies the water in the form of spray, with considerable force, to both sides of the paper at each revolution, or from one hundred to one-hundred-fifty times per minute.

Washes with exact uniformity, and gives more brilliant and permanent work; is simple, not liable to get out of order, and will last a life-time.

	Size	Cylinder,		Capacity in Cards.	Largest Print.	Price.
Diam.	16in.	Length	14 1-2in.	84	14 by 17 ins.	\$30
66	20	"	19	144	18 by 22 "	40
44	25	"	24	220	22 by 28 "	50

Larger sizes may follow.

Liberal discounts to dealers and agents.

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"I write to testify to the satisfaction I feel with the working of your Rapid Print Washer. It is simply perfection, as far as my experience with it goes, vis: One year's constant use. I have washed eight dozen cartes in ten minutes, and the most accurate test I know of, starch and iodine, failed to show a trace of hypo remaining."—L. G. BIGELOW, Detroit, Mich., Feb. 10th, 1874.

L. V. MOULTON, Beaver Dam, Wis.

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STOCK DEPOT,

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OF J. HAWORTH,

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624 ARCH STREET, PHILADELPHIA,

Where he hopes, by prompt attention and fair dealing, to merit a continuance of the patronage so largely given to the late firm.

We will still keep a well assorted stock of

PICTURE FRAMES (OVAL AND SQUARE),
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which can be had at the lowest rates; as well as

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We also have a full line of CAMERAS of the best makes and latest improvements, CAMERA STANDS, HEAD-RESTS, BACKGROUNDS, and all Accessories necessary to the Photographic Art. We would call the attention of photographers to the fact that we manufacture SQUARE FRAMES, and so can generally ship any frames (especially odd sizes) the same day they are ordered. We would also call attention to the noted ALBU-MEN PAPERS, Morgan's and H. Extra, the best for warm weather, for which I am the agent.

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Successor to Haworth & McCollin, 624 Arch St., Philadelphia.



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DESIRE to announce to American Photographers that they have perfected a speedy and certain method of making **BURNT-IN ENAMEL PICTURES.** This acquirement has cost them the outlay of much money and time, but they are willing to communicate their process to American Photographers if a willingness to partially reimburse them is shown. They have heretofore given to the fraternity whatever novelties and ideas they have had, but in this instance, under the circumstances, they feel that they will not be considered as ungenerous when they withhold the burnt-in process. They propose to hold it to themselves in Europe, but offer it to American Photographers on the following terms:

Their price is \$5000. If one hundred photographers subscribe \$50 each, or fifty photographers \$100 each, they will supply each subscriber with the most detailed instructions as to the process, and where and how to obtain the materials, and hereafter post each subscriber on all matters of improvement that they may hereafter discover. The time will be limited to June 1st, 1874.

THE RESULTS LEAVE NOTHING TO DESIRE.

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And all communications should be addressed to

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124 N. Seventh St., Philadelphia, Pa.

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- 2. B stands for Bumble-B.
- 3. Blackberry Blossoms.
- 4. The Hen's Nest.
- 5. Let us Have Piece.
- 6. Mamma, where was I when you were a little girl?
- 7. Our Domestic's Relations.
- 8. She went to the Butchers.
- 9. My Lady and My Lady's Maid.
- 10. The Mountain Spring.
- 11. Unveiling a Statue of Young America.
- 12. Young America in the Nursery.
- 13. Young America as an Artist.
- 14. Young America Asleep.

- 15. The Sunbeam Fairy.
- 16. The Picture-Book.
- 17. Sitting for my Picture.
- 18. Young America Bathing.
- 19. Young Boston's Ambition.
- 20. Ding-Dong-Ding, Music on a Rubber String.
- 21. Reflection.
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- 25. Home Group.
- 26. A View.
- 27. The Gleaner.

Sent by mail on receipt of price. \$2.00 per dozen.

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These inimitable pictures are all natural compositions, and touch the tender chords of human nature most wonderfully. They are attractive to every one who has a heart, but particularly instructive as studies for photographers, in grouping, posing, and composition.

They will help any man make better and easier pictures of children, and should be studied.

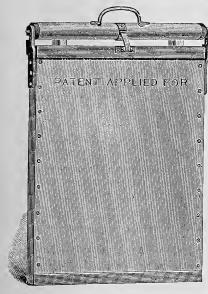
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Photographic Ware.



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The result of years of experience; a decided improvement; and for simplicity, compactness, lightness, and durability, they excel all others.

Have been thoroughly tested, and received the highest testimonials from those who have used them.

"We have tried your Acid-proof Composition, and find it to be everything you recommend it to be It is an almost indispensable requisite in a photograph gallery. For plate-holders particularly, it is worth many times its cost. Glass or rubber corners are no longer necessary in their construction. They may just as well hereafter be made entirely of wood, and it matters very little what kind of wood."—WM. NIMS, Fort Edwards, N. Y., September 12, 1873.

"I have had the wooden Bath you made for me in use for some time, and am highly pleased with it; it is just what I have wanted for a long while, and could not obtain one made in this particular shape heretofore. The composition is all that could be desired."—James Mullen, Lexington, Ky., December 27, 1873.

"Your new patent Field Bath you kindly forwarded to me I have thoroughly examined and tested, and having had considerable experience in field work the last twenty-seven years, and used the very many different kinds of Baths, I can cheerfully recommend yours to excel all others for convenience and other excellent qualities."—R. M. Cressey, Wenona, Mich., January 4, 1874.

"Our attention having been called to your patent Baths, we determined upon giving them a trial, in justice to your discovery, we feel it our duty to attest its merits. It is all that is claimed, and more; for apart from the many advantage claimed for it, it produces the most perfect negative we ever made, and seems to have the quality of purifying the solution. Once used, no photographer, we feel confident, would be without them."—Schreiber & Sons, Philadelphia, Pa., January 16, 1874.

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By Elbert Anderson, operator at Kurtz's studio, New York. This is the most beautiful and elaborate work on the art ever published. It contains nearly 250 pages—large, square—twelve photographs made by the author to illustrate the lessons of the work, and almost two hundred fine wood-cuts. See advertisements. Price, in cloth, gilt, postpaid, \$4.00.

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The 1874 edition excels all of its eight older brethren. The list of articles is made up of original contributions, written especially for its pages, on all departments of the art, wholly by practical men who are only heard from once a year through the persuasion of the editor, in this way. See special advertisement. 146 pages. Paper cover, 50 cents. Cloth, \$1. A few copies of former editions, from 1866, at same price.

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G Handbook of the Practice and Art of Photography. By Dr. Vogel. Out of print. New edition during the year.

H How to Paint Photographs in Water Colors.

A practical Handbook designed especially for the use of Students and Photographers, containing directions for Brush Work in all descriptions of Photo-Portraiture, Oil, Water Colors, Ink, How to Retouch the negative, &c. By George B. Ayres, Artist. Third edition. Differing largely from previous editions. Price, \$2.00.

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K Lookout Landscape Photography.

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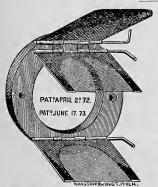
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These tinters are used for giving to magic lantern pictures various beautiful tints or colors, as blue, red, yellow, green, crimson, &c., &c. They can be adjusted to the lantern, either on the end of the front lens, or may be screwed to the back of the front lens-holder, as in the case of the Stereo-Panopticon and Educational lanterns. On the Artopticon, they are placed on the end of the front lens tube.

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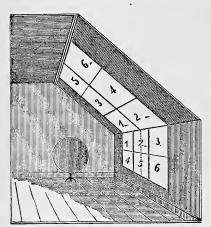
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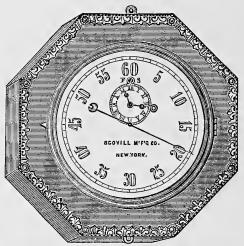
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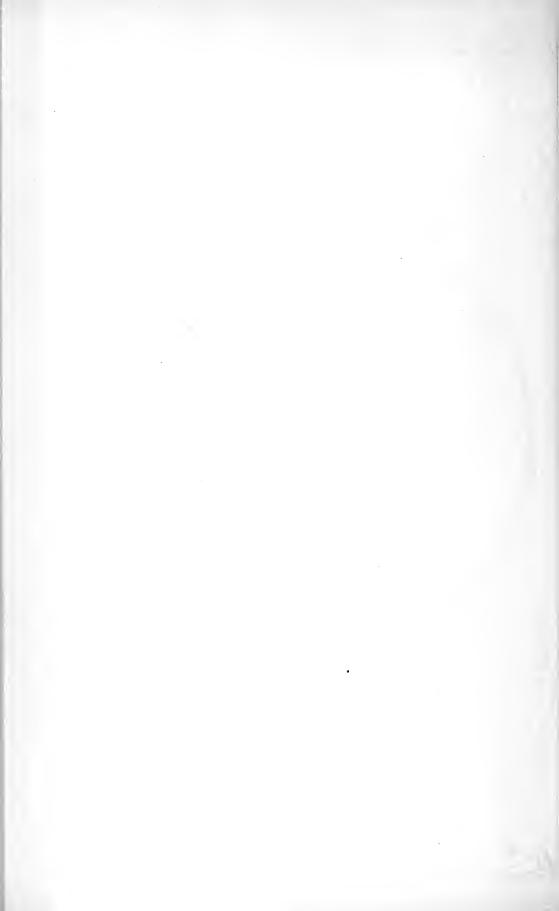
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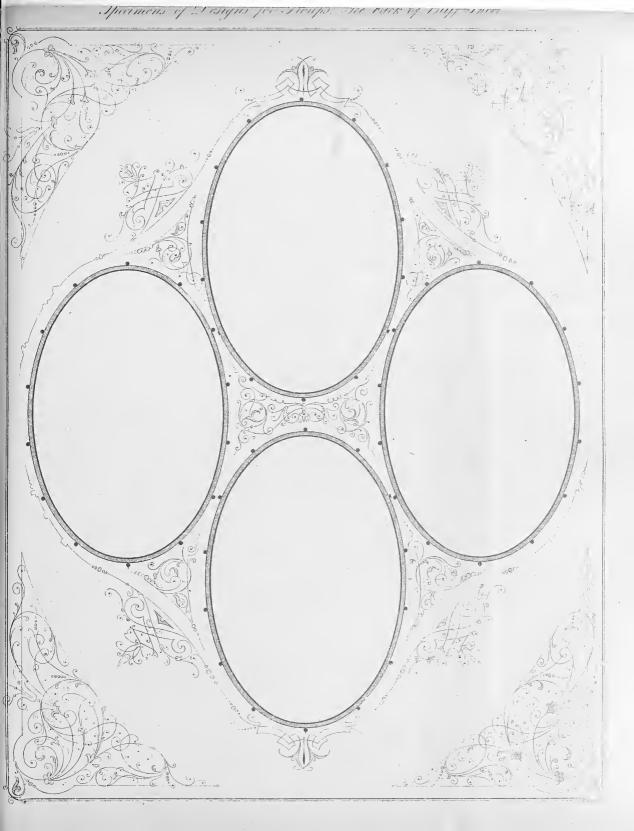
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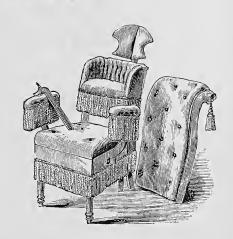
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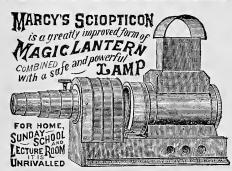
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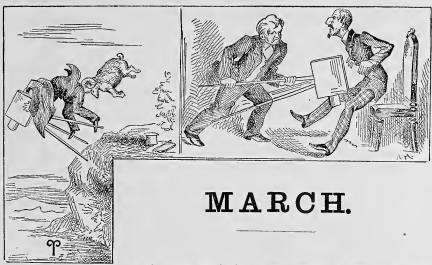
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BENERMAN & WILSON, Photo. Publishers,

S. W. cor. Seventh and Cherry Sts., Philadelphia.

Philadelphia Photographer for 1874!

The increasing favor shown the publishers of this Magazine during the first ten years of its life, has given them the means to prepare for their intelligent patrons still greater attractions than ever for the year 1874. The old staff of regular contributors will be continued.

A series of illustrated descriptive articles on

PHOTOGRAPHY IN FRANCE,

which will include descriptions of all the leading photographic studios and factories in France, are being contributed by Mons Ernest Lacan, Secretary of the French Photographic Society. One of a series of handsomely illustrated articles, entitled

VIEWS ABROAD AND ACROSS,

by the editor, including sketches of matters and things photographic, made during a tour in England, Ireland, Scotland, France, Belgium, Prussia, Austria, Italy, and Switzerland, will be in each number during the year; a continuation of the articles on the study of art; fresh and original papers by old and new contributors, &c., &c.

DURING 1874,

No photographic artist should fail to subscribe for the PHILADELPHIA PHOTOGRAPHER. It is going to be one of the most eventful years ever known in the art, for

TWO GREAT PATENT CONTESTS,

now under way-the "Shaw" patent and the Sliding Plate-holder patent-both of vital importance to the craft, will take place, and all should be posted on them as they proceed. The fullest and earliest information will be given in this Magazine.

THE PROCEEDINGS OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION are

only given entire in one number in the Philadelphia Photographer.

THE EMBELLISHMENTS FOR 1874

will be from negatives by Messrs. Luckhardt, Marshall, Sommer, Robinson & Cherrill, Kurtz, Jewell, North, Curtis, Mottu, and others, and will be unusually excellent and choice, illustrating all branches of photography, and introducing very useful studies.

THEY ALONE WILL BE WORTH THE COST OF SUBSCRIPTION.

ILLUSTRATIONS, by means of engravings, cuts, &c., will be profusely employed, and every effort made to secure to the readers of the Philadelphia Photographer

The Most Elegant and Useful Photographic Magazine in the World!

To Employers, Employees, &c.; Please read our liberal offer of

PREMIUMS ON THE OPPOSITE PAGE

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The attention of advertisers, and those having galleries, &c., for sale, is called to our Specialties pages. Terms \$2 for six lines, and 25 cents for each additional line, seven words to a line, always in advance. Duplicate insertions, 50 cents less, each. Sure to pay. 😥 Operators desiring situations, no charge.

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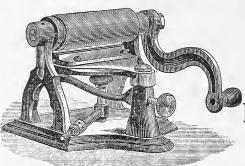
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WILLIAM G. ENTREKIN.

DEAR Sir: I am familiar with the class of machines to which your Photographic Burnisher relates, as I was examiner of that class of inventions in the United States Patent Office for some time, and have had occasion to keep myself posted in regard to them since, and believe your Burnisher is the very best in existence, embracing all the features necessary to make a complete polished surface upon a photograph, and also believe the time will come when every photographer of any pretensions will be compelled to use one. I predict for you success in your patent.

Yours truly,

C. M. PARKS, Solicitor of Patents.

Office of C. M. Parks, Solicitor of Patents, 428 Seventh Street, Washington, D. C., January 5th, 1874.

WM. G. ENTREKIN.

DEAR SIR: Yours is just received. You need not fear any trouble from any parties in regard to the Weston machine: your Burnisher does not infringe with any feature of the Weston machine in the least particular. You can, therefore, manufacture and sell your machine with impunity.

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Number 124.

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THE

PHILADELPHIA

Photographer.

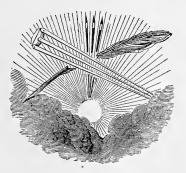
AN ILLUSTRATED MONTHLY JOURNAL,

DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

April, 1874.



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BENERMAN & WILSON,
PUBLISHERS.

Subscriptions received by all News and Stockdealers.

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Sherman & Co., Printers, Philadelphia.

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ADVERTISEMENTS.

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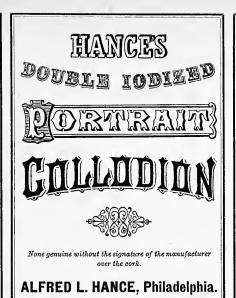
Mosaics, 1873 and 1874. MOULTON, L. V. Rapid Photo-Washer. NATIONAL PHOTOGRAPHERS' CHEMICAL CO. PATTBERG, LEWIS & BRO. Passepartouts, &c. PHENIX FERROTYPE PLATES. PHOTOGRAPHER'S POCKET REFERENCE-BOOK. PHOTOGRAPHIC PUBLICATIONS. PHOTOGRAPHER TO HIS PATRONS. Powers & Weightman. Photographic Chemicals. PREMIUMS FOR 1874, for New Subscribers to "Philadelphia Photographer." RAU, GEO. German Albumen Colors. RICE & THOMPSON. Photo. Stock House. ROBINSON & CHERRILL. Burnt-in Enamels. ROBINSON'S NEW PHOTO, TRIMMER. ROBINSON'S METALLIC GUIDES. ROHAUT & HUTINET. Photographic Mounts. ROTTER, GEO. & Co. Albumen Paper. RYAN, D. J. Photo. Stock Depot, Chromos, &c. SAUTER, G. Passepartouts. SCHWARZE & VALK. Photo, Papers. SCOVILL MANF'G. Co. Photographic Materials. SEAVEY L. W. Scenic Artist, Backgrounds, &c. STEINHEIL'S NEW APLANATIC LENSES. STEREOGRAPH BOOK. STEVENS, CHAS. W. Photographic Goods. THE SKYLIGHT AND THE DARK-ROOM. WAYMOUTH'S VIGNETTING PAPERS. Weller's Stereoscopic Treasures. WILSON, CHARLES A. Photographic Goods. WILSON, HOOD & Co. Photo. Materials, &c. WILLY WALLACH. Albumen Paper. WORLD, Back Volumes of. WOODWARD, D. A. Solar Cameras. ZENTMAYER, JOSEPH. Lenses.

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Water, 16 "

Acetic Acid, 1½ to 2 ounces, according to subject.

Alcohol, enough to make the Developer flow readily.



THE ABOVE IS A FAC-SIMILE OF THE LABLE USED ON

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I can confidently recommend it as being possessed of very superior advantages over any other Collodion, but not desiring to say too much about my own productions, respectfully request portrait photographers to try it. The advantages of a Collodion made with these new salts is spoken of by several leading photographers, as follows:

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"For fineness of film, exquisite detail, and the production of good printing qualities, I have never seen it equalled."—R. J. Chute.

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HANCE'S DOUBLE IODIZED COLLODION. This is made by compounding the different iodides according to their equivalents, and producing a new salt. It is being used by some of the best photographers, but its general use is retarded, no doubt, by the extra trouble in making it. The peculiarities of this Collodion are good keeping qualities, its improvement by age, and the richness of effect produced in the negative, the film being perfectly structureless. As it requires time to ripen, I have the advantage of making a quantity and keeping it always ready to supply any de-

I know the difficulties many labor under of making a collodion to suit them, and keep it in good condition till it is used up, especially where a large business is not done; and it is my purpose to produce something that will suit every man's case, and by helping to supply the best materials, help them to produce the best work.

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CUMMINGS' GRIT VARNISH

gives a very fine surface for retouching. Those that use a varnish of this kind will find that this has no superior. By it the retouching is greatly facilitated and the same amount of work on a negative may be done with it in half the time that would be required without it.

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HANCE'S GROUND-GLASS SUBSTITUTE is simply what its name implies, a substitute for ground-glass for any purpose that it is used for in the gallery. It is so perfect an imitation of ground-glass that it can only be distinguished by the closest scrutiny. Its surface is so fine that it is just the thing for cameras, and it is being used now very extensively for that purpose. To the landscape photographer a bottle of it is indispensable. If he breaks his ground-glass, which often happens in the field, he has only to coat a plate, such as he is sure to have with him for negatives, with the substitute, and in a few moments his ground-glass is replaced and his work goes on. It is equally useful in the printing room, and any photographer who has once used it will never again be without it.

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Gill's Concentrated Chromo Intensifier,
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TRADE MARK:—THE BEST GOODS—FULL MEASURE.

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The SUBSTITUTE is in the form of a varnish; is flowed and dried the same as varnish, but dries with a granulated or ground-glass surface.

WHEREVER GROUND GLASS IS REQUIRED,

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FOR GLAZING SKY AND SIDE-LIGHTS,

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FOR A RETOUCHING VARNISH,

FOR SOFTENING STRONG NEGATIVES,

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I would not be without a bottle for ten dollars.

R. Newell & Son's Gallery, 626 Arch St., Philadelphia, Feb. 17th, 1873.

I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "promise very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past six months in my gallery, I can conscientiously pronounce them first-class in every respect. Your Ground Glass Substitute I consider one of the most practical and useful articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

Yours truly,

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1874.

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"The high artistic merits of the pictures, and their great value as studies for the progressive photographer, were conceded by all. The general harmony in the details of each print, the management of light, and beautiful rendering of texture were greatly admired."—Photographic Section of the American Institute, N. Y.

Special votes of thanks were given for them by the Photographic Society of Philadelphia; Photographic Association of West. Illinois; Chicago Photographic Association; Indiana, District of Columbia, and Maryland Photographic Associations; Photographic Section of the American Institute; German Photographers' Society, New York; Boston and Brooklyn Photographic Art Associations, whereat they attracted great attention and admiration.

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"I think when we say they are splendid it is only a mild expression of what they will bear."

—E. F. EVERETT.

"They are well worth striving for, and the photographers who allow this set to remain out-

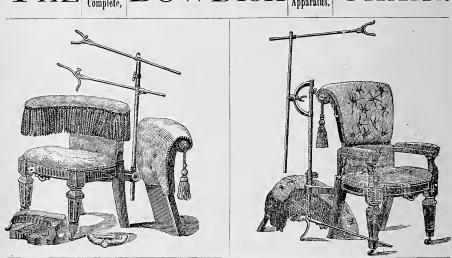
side their collection don't deserve them." -J. PITCHER SPOONER.

"They are by far the best specimens of photographs of white drapery that I ever saw, and the artistic part leaves nothing to wish for."—
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We make this offer as a matter of business, and not as favor to any one on either side. It will pay you to give a year's subscription to your operator or to your friend or customer, in order to secure these pictures.

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Enabling the photographer to successfully secure every variety of pose with facility and reliability. It is admirably adapted to the varying necessities of female portraiture, and is equally suited for children, for vignettes, or for full lengths. The BOWDISH CHAIR is substantial in construction, elegant in design, and rich in upholstery and finish. Those who have purchased them, speak in the highest terms, as will be seen by the following



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"Since receiving your posing chair, nearly a year since, I have had it in constant use, and am satisfied that it is the best posing chair in the market. It is easily worked, and is so well made that one will last a life time, and then be a valuable heirloom."—L. G. BIGELOW.

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"Your chair has arrived at last. I am much pleased with it. 1 don't think my gallery can be complete without one of them. Wishing you the success your invention merits, I am, truly yours, A. Hesler."

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Spec	ial cha	airs to order.				•			

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Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

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No printer should attempt to make medallion pictures without them.

THEY HAVE NO EQUAL FOR QUALITY.

Beyare of spurious imitations made of common paper, full of holes, badly cut, and odd shapes and sizes. Ask your stockdealer for GIHON'S CUT-OUTS, and see that they are in his envelopes with instruction circular included.

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COMPLETELY OBSCURING THE IMPERFECT BACKGROUNDS OF COPIES, RETOUCHING NEGATIVES.

FAULTY SKIES IN LANDSCAPES,

COATING THE INSIDE OF LENSES OR CAMERA BOXES, BACKING SOLAR NEGATIVES,

COVERING VIGNETTING BOARDS,

AND FOR ANSWERING

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It is applied with a brush, dries quickly and sticks.

CUT-OUTS (thirty), \$1.00.

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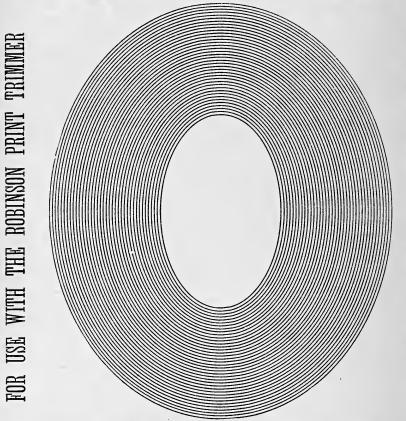
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128 N. Seventh St., Philadelphia, Pa.

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PHOTOGRAPH TRIMMER

IS A NECESSITY AND CONSIDERED INVALUABLE.

For examples of its work we refer to the recent and present pictures in the Philadelphia Photographer.

IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

The accompanying cut represents the instrument in the act of trimming a photograph. It does not cut, but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once.

Oil the wheel bearings with Sewing Machine Oil.

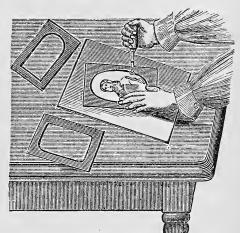
A Trimmer Mailed for \$3.50.

The difficulty of procuring exactly true guides for cutting out prints has induced the inventor to put up machinery for the production of all styles of them, guaranteed mathematically true, and to be known as

ROBINSON'S IMPROVED GUIDES.

See advertisement on opposite page.

A full stock of regular sizes now on hand. A complete, illustrated, catalogue and price-list will be issued soon.



TESTIMONIALS.

"For cutting ovals I think the Robinson Trimmer is perfect, and if nobody brings them out in England I shall, as I think it a pity such a good thing should not be introduced."—WALTER B. WOODBURY.

"I would rather give fifty dollars than be without one. By its use all annoyance from dull knives tearing the prints is avoided, and it is a pleasure to use it."—E. T. Whitney, Norwalk.

"Robinson's Photographic Trimmer is an excellent little instrument. It does the work intended magnificently. It is not only exquisite for trimming photographs, but also for making Cut-Outs and cutting the sensitized paper to any needed size, using for the latter purpose a guide of steel in form of a ruler, thus entirely dispensing with the knife."—Bern'd Khillende, Z. Chicago, III.

"I like the Trimmer very much. I think it a very useful article. It works well and does all it is recommended to do."—F. G. Weller, Littleton, N. H.

"The Robinson Trimmers have come to hand, and I like them very much; they are just what I wanted and found it difficult to get."—J. W. Black, Boston.

"I am using the Robinson Trimmer and consider it the best article for trimming photographs I ever saw."—W. H. Rhoads, Philadelphia.

"It does its work magnificently. The only wonder is, that it was not invented years ago. It is indispensable."—Garrett Bros., Philadelphia.

"I think the Robinson Photographic Trimmer is the best thing ever put upon the market for photographic use. It is cheap and does its work perfect. I now make with it all the cut-outs I use, and also cut out all my photographs from eleven by fourteen down to cards. It only cost me four dollars and I would not be without it for the best twenty-five dollar cutting machine I ever saw."—D. Lothrop, Phila.

"The Trimmer comes up to all you claim for it. I would not be without it."—T. CUMMINGS, Lancaster.

"Robinson's Photograph Trimmer is all that it is claimed to be. I have trimmed all my prints with it from the day I received it, in less than half the time taken by a knife. It does its work with mathematical correctness and uniformity. I would not be without it for ten times its cost. It cannot be recommended too highly."—W. H. CRANSTON, Corry, Pa.

"The Robinson Trimmer has proved to us one of the most usefully instruments that we have in our gallery. In the few months that we have owned it we cut some 10,000 photographs with it, which were cut in one-fourth the time, and cut better than any other instrument could do it."—Schreiber & Sons, Phila.

"It does the work quick, sure, and perfect. We would not be without it. It is simply what it is represented to he."—B. Frank Saylor & Co., Lancaster.

"The Photograph Trimmer is a good and quick working thing. I do not want any thing better and more useful in the gallery for that purpose. I would not be without one."—A. M. BACHMAN, Allentown, Pa.

"Thave used Robinson's Photograph Trimmer some time. A lady was asked how she liked her sewing machine, and in reply said "Well I could get along without it, but when I do I shall not sew any more." That is me, I can get along without the Trimmer but when I do I shall not trim photographs."—WELL G. SINGHI, Binghamton, N. Y.

"It gives perfect satisfaction, being the best thing of the kind I have ever used. There is nothing amongst my photographic stock more useful."—M. P. RICE, Washington, D. C.

"The Robinson Trimmer works admirably. Does the work intended with great satisfaction."—A. K. P. Trask, Philadelphia.

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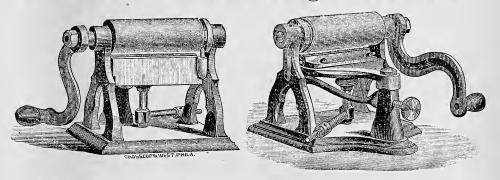
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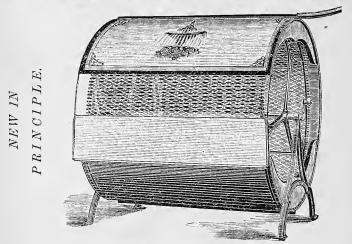
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RAPID PHOTO-WASHER.



QUICK AND RELIABLE IN PRACTICE.

PATENTED AUGUST 12TH, 1873.

Instead of soaking the Prints it applies the water in the form of spray, with considerable force, to both sides of the paper at each revolution, or from one hundred to one-hundred-fifty times per minute.

Washes with exact uniformity, and gives more brilliant and permanent work; is simple, not liable to get out of order, and will last a life-time.

	Size	Cylinder,		Capacity in Cards.	Largest Print.	Price.
Diam.	16in.	Length	14 1-2in.	84	14 by 17 ins.	\$30
66	20	"	19	144	18 by 22 "	40
"	25	66	24	220	22 by 28 "	• 50

Larger sizes may follow.

Liberal discounts to dealers and agents.

TESTIMONIALS.

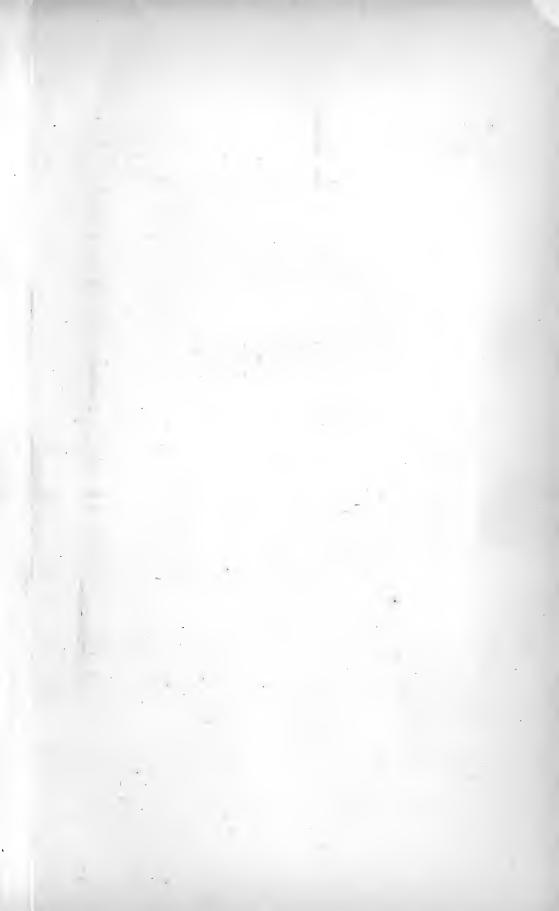
"I write to testify to the satisfaction I feel with the working of your Rapid Print Washer. It is simply perfection, as far as my experience with it goes, viz: One year's constant use. I have washed eight dozen cartes in ten minutes, and the most accurate test I know of, starch and iodine, failed to show a trace of hypo. remaining."—L. G. Bigelow, Detroit, Mich., Feb. 10th, 1874.

"Time saved is money earned." The above maxim is as true in the photographic business as in any other, and in this connection I would say, that Moulton's Rapid Photo-Washer will save more time in any weth-regulated gallery, than any mechanism ever yet invented; besides the prints finish with a finer lustre than those washed by any other device I have ever yet seen. Having used one for the past two months, washing from 100 to 300 prints daily, I am pleased to add my testimonial to its excllence."—WM. M. Lockwood, Ripon, Wis. March 11th, 1874.

ANALYSIS OF PRINTS.

"After analyzing the prints which were washed by you during ten minutes, in your Rapid Photo-Washer, and those furnished by an artist of this city, washed in a syphon tank in running water for one hour and left in the water over night, for the quantity of hyposulphites left therein, I take pleasure in stating that the prints treated in the Rapid Photo-Washer contain perceptibly less hyposulphites than those washed in the other manner described."—Gustavus Bode, Analytical Chemist, and Dealer in Photographic Stock, Mitwankee, Feb. 21, 1874.

L. V. MOULTON, Beaver Dam, Wis.





W. C. NORTH,

UTICA, N. Y

Philadelphia Photographer.

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APRIL, 1874.

No. 124.

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THE MAMMOTH OFFER.

The progress that is made in this affair is a matter of astonishment to us. Scarcely had a week of the life of our last number passed before the demand for tickets began, some parties not only wanting one ticket, but three and five. We hope to announce in our next that the tickets are all gone. A more minute description of the box and lens are given further on, and we congratulate in advance the lucky one who secures the splendid prize.

THE CHICAGO EXHIBITION.

OUR readers are referred to the action of the Executive Committee on this subject further on. At one time we feared that there would be no exhibition, and that the National Photographic Association must cease to exist. We rejoice that it is otherwise. We hope that all will take hearty interest in it now, and go to Chicago with their finest work. Let it be the very best of all exhibitions and conventions. We have some suggestions to make which we will withhold until next month, for fear of supplanting the Executive Committee who, at this writing, have not yet met.

THE WORLD.

Our offer to send free copies of the World terminated March 18th. Thousands of copies

have been sent to our readers gratis, but we have no more to give away. We now offer what are left to fill up broken volumes, or we can supply full volumes at twenty-five cents per copy, for one month only. Please read the advertisement.

BURNT-IN ENAMELS.

THE attention of those who may have overlooked this matter in our last issue is directed to the article and advertisement on this subject given therein.

OUR PRIZE MEDAL.

APRIL 15TH is the limit, with the usual three days of grace, given for the reception of negatives in competition for the handsome gold medal offered by us, and the conditions are as follows:

- 1. The offer is for the best three portrait negatives received by us within the time named.
- 2. A print from each negative is also required, and the whole, carefully packed, must be sent, express paid, to this office.
- 3. The negatives are preferred all of one subject, so as to prove that if a man can make a good thing once he can do it again.
- 4. The negatives will not be thrown out if the subjects differ, provided their average quality is the same.
 - 5. A print of each subject will be sent to

every one competing gratis, providing none of the pictures are so bad as to lead the judges to suspect that the negatives are merely sent to secure the set of prints.

6. The mounts on which the prints are placed should be without names, but a slip of paper should be placed with the prints or negatives, containing the name of the maker.

7. The negatives and prints will be submitted to the jurors (none of whom will compete) without the names, but numbered, so that the jury will not know at the time to whom they make the award.

8. After the award is made, each competitor shall be promptly notified, and the set of prints sent as soon as they can be printed.

9. There will be no public criticism of the pictures, or comparisons made.

10. Retouching and all other legitimate means will be allowed.

The competition will be fierce. Do your best

How to avoid Unnecessary Waste of Time and Silver.

BY E. Z. WEBSTER.

Doubtless the following will strike some of my brother photographers as an unnecessary waste of words; but the result of twenty-seven years' experience in the business, has satisfied me that not one photographer in fifty makes a systematic and economical use of his silver and gold; I must include not only "greenbacks," &c., but time, which is money. A properly graduated scale would place time high above all other treasures, and still it is more lavishly wasted. No ambitious photographer can afford to waste his time, and certainly no real devotee of our beautiful art ever need waste a moment. Every hour of daylight is pure gold, and should be devoted to those purposes, which can only be successfully prosecuted by day, leaving until night those things which can just as well be attended to at that time (of course I am addressing the ambitious, and the devotee). If you are an old veteran my advice is unnecessary, but those who have a name to make will please take heed.

If you do not know how to fill in your day because the weather is unsuitable for sitters or chemical practice, just refer to page 41 of the *Photographic Mosaics* for 1873, and read the article "What to Do and When to Doit;" and when night comes sit down and copy it in "loud" letters, and nail it up in your gallery where you and your assistants can always see it and heed it.

"But what can be done at night?" Why, many things can be done by lamplight which will economize your daylight. If you are master of every branch of your business you will find enough to do, and if not master you will find enough to do as pupil. Study, study, study; read everything pertaining to your business; think it all over; cull out a word here an idea there, and put into practice every useful hint and available suggestion. On my sitting-room table lie the Philadelphia Photographer, Skylight and Dark-Room, Mosaics, Photographic Bulletin, The Photographic Guide, The British Journal, and Photographic News, Almanacs, &c., &c.; and I keep them there constantly, and have read every word in all of them carefully. I have gleaned, culled, and "precipitated" their contents, and when an article comes under my eye which I wish to study up or to carry into practice, or which I think might be made available, I make a memorandum in a little diary so that I can find the desired article without difficulty. And, notwithstanding my many years of experience I find so much which is new to me, and so much that is useful, that I can but wonder how any photographer can possibly succeed who neglects his printed opportunities. Of course, there is great diversity of opinion in regard to the various processes; one writer advocates one plan or formula, and another writer condemns that and recommends another, which is diametrically opposed, and still each seems to produce successful results in the hands of those who can work it; but no one can succeed who tries to follow all the paths. He must take some one which he has confidence in and follow it up and make that his general plan, and then work, study, think, and press into service every available hint, suggestion, and idea which can be obtained.

You may be wondering what all this has to do with "avoiding unnecessary waste of silver." Why, my friend, it has every-

thing to do with it. The waste of time and opportunities is more important than all other waste put together, and any one who does not economize in all things does not economize at all; and here let me explain by saying that true economy sometimes seems an absolute waste, but the final result must always be considered, and if the object gained is worth all the labor, time, and treasure which has been expended, well and good; but if the same object might have been attained at a less cost of time and treasure, by a more judicious expenditure of either, then there was a lack of economy. Many photographers are deluded with the idea that a "silver-saving apparatus" would insure their everlasting salvation pecuniarily, and because they are told that nearly all the silver used in their business can be recovered the utmost carelessness is practiced, consequently from fifteen to thirty per cent. more silver is wasted than is necessary, and the unnecessary waste is greater than the clear saving of any "silver-saving process" in use. Of course, no one can deny the propriety of saving all the silver which can be saved economically, but it requires more judgment to determine when, where, and how to save silver, than it does to run a steamboat, because the relative value of time and silver is constantly and sometimes momentarily transposed, and when a man gets silver saving on the brain, he will follow up and corner the last drop, and ferret out and bag the smallest scrap, even though he may have a sitter in the chair and a dozen more waiting.

Suppose you could save seventy-five per cent. of the silver used, if you will count the cost of time and trouble expended in saving so high a percentage, and then deduct the unnecessary waste which you made thinking it could "'most all be recovered," then deduct that twenty-five per cent. for refining, allowing the refiner to do the figuring, and when you get through you will find the silver you have saved has cost you about one hundred dollars per pound.

Further, I claim that the term "waste or spent solutions" is a misnomer, and does not apply to any solution containing any substance which we wish to retain or reconvert to the same or any other purpose.

When the silver has been precipitated from hypo, cyanide, or any other solution, the remaining solution may be "waste or spent," provided we have no other use for it.

The same remark holds good in regard to the chlorides, sulphurets, &c. When the silver has been extracted therefrom the residues or refuse constitute waste, and nothing else.

Finally, I claim that the most economical way to save silver is not to waste it unnecessarily, and in my next paper I shall point out some of the holes through which silver escapes, and will endeavor to suggest a partial remedy.

(To be continued.)

GERMAN CORRESPONDENCE.

New and Successful Method of Reproducing Negatives—Chloride, Bromide, and Iodide of Silver in Wet and Dry Plates—On Difference in the Sensitiveness of Collodion Film.

To-DAY I have to report some news of great importance, which is of interest not only to Germany but for the whole photographic fraternity. It is a method of repro-You will say this is ducing negatives. nothing new. That may be. We have had reproduced negatives for a long time, and when we read the reports of the papers we are led to believe that the matter is very easy, but if we ourselves try it, practically, we may get a tolerably good negative. but it does not bear comparison with the original, either in softness, half-tone, or harmony. If from a negative a positive is made by the camera, or by Edward's albumen plates, a part of the fineness is generally sacrificed, or if everything comes out sharp and clear the positive will not have the same proportions of light and shade as the negative, and this deviation will increase when we take a negative from the reproduced positive; in fact, in most cases the negative so obtained cannot stand comparison with the original. The want of an easy method of reproducing negatives is felt the more as our negatives are the most fragile part of the photographic household, and if one breaks it is, in most cases, not the worst, but one of the best and finest.

It is with pain that I think of some broken plates, from Aden, Egypt, and the summits

of the Carpathian Mountains, which unfortunately can never be replaced. Under all these circumstances, judge of my surprise on receiving, about two weeks ago, a box from Mr. Obernetter, in Munich, containing a number of original negatives, and also reproductions of the same. The reproductions were of a peculiar blackish-gray color, and at first sight the copies appeared thinner than the originals. At first I had my doubts, but I soon found out that prints made from the copies did not vary from those taken from the originals. Generally, the prints from the reproduced negative are more brilliant; they showed deeper shadows and brighter lights. But this rather appeared to be an advantage. In regard to clearness, purity, and softness they left nothing to be desired. Obernetter has handed his process to the Vienna Photographic Society and received the gold medal for it. The process in itself is not new, but in its execution it varies from all the other methods. Obernetter does not require a diapositive to make a negative, but he simply obtains the negative direct, and in one operation, by the so-called dust process. This process, which heretofore has only been used for making burned-in photographs, consists in the employment of a film of gum arabic, which is sensitized with chromate of potash. Such a film is slightly sticky, so much so that a pigment powder will adhere to it. This stickiness is lost by exposure to light. If such a plate is exposed to the light which passes through a negative, those places only will remain sticky which are covered by the dense parts of the negative, while the others lose it. If the plate, after having been exposed, is dusted over with a powder, the latter will only adhere to those parts which were covered by the dense parts of the negative. We obtain in this manner, by a single operation, a negative. Obernetter has not published his results as yet, but they will be printed very soon. In the meantime I myself have made experiments in this direction. I coated a glass plate with the following solution:

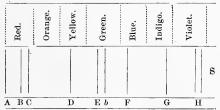
The film is dried in the dark at a temperature of about 90° to 100° Fahrenheit. I placed a negative plate on the film and exposed with the photometer to 15 degrees. On the plate there appears a feeble image. When the film had been exposed for a short time, to a damp atmosphere, I dusted English red over it, and obtained in fact a negative. The dusting has to be repeated several times, and the excess of color has to be removed with a soft brush. The negative which is obtained in this manner is reversed in position when compared with the original. When we wish to have it in the same position as the original we have to lift the film. For this purpose plain collodion is poured over it, and the plate is placed in acidulated water (1 part of sulphuric acid, 100 water); this removes the film with the picture. The film, after being washed, is placed in the correct position on a plate of glass. It seems as if, in this way only, perfectly plain surfaces would be covered with the negative film; this, however, is not the case, for Obernetter copies curved negatives also, by placing a gum-gelatin film on mica.

Astonishment has frequently been expressed that Obernetter is able to make light prints from ordinary negatives, which are not reversed in position. Now the secret is out. Obernetter makes by the above-mentioned process a reversed negative, and makes from it the light print. He has practiced this process for years, and writes himself: "Two-thirds of all the work done at my atelier I would have been unable to make if I had not had this process; beginning with the war pictures of 1870 to the pictures of the Vienna Exposition in 1873." Recently Obernetter has reproduced plates of sixty centimetres in size. He reproduces also negatives for the profession, and charges, for instance, for a stereoscope negative \$2 in currency. In three or four weeks I expect to receive the full particulars of this process, when I will communicate further details to you.

In the meantime I have continued my experiments in spectral analysis, and have made very curious observations, which will very materially modify all our former ideas about the sensitiveness of the photographic film. Heretofore experiments have gener-

ally been made with wet plates; for instance, most of the photographic spectral experiments were made with wet plates, and the results have rather rashly been applied to dry plates also; this has led to many errors. The behavior of the photographic film, in relation to color, becomes completely changed when we wash and dry it.

According to the experiments of Schultz-Sellack, wet chloride of silver (under nitrate of silver) is sensitive only to the extreme violet rays, near the line H (see Figure),



while the other visible colors exert hardly any influence. The dry chloride of silver, according to my experiments, behaves quite different; it is about two and a half times less sensitive than bromide of silver, but with a sufficient exposure it is affected by almost all the colors of the spectrum. With chloride of silver I obtained a picture of the spectrum which extended to the line B, in red (see Figure). The effect on bromide of silver is also modified by the state in which it is submitted to the light, whether dry or wet, as I have mentioned already in a previous letter; but I noticed this most strikingly with iodide of silver. When exposed wet, it yields a picture of the spectrum extending from ultra violet to a little beyond G, where it suddenly stops.

When exposed dry the sensitiveness extends much farther, even into the green, where it suddenly decreases, but continues into the red beyond the line B (see Figure). These observations explain many phenomena of dry-plate photography. It has often been asserted that dry plates prepared with iodide of silver only, yield pictures as soft as those made with wet bromo-iodide of silver plates. Krone has recently stated the same, and expresses the opinion that the resin which he adds to his dry plates affects the plates in the same way in which bro-

mide of silver acts in the wet process. We do not need, however, such an hypothesis, for the sensitiveness of iodide of silver in the dry state is totally different from that in the wet state; its behavior when dry corresponds almost completely with a wet bromo-iodide plate, only that the latter works much more rapidly.

After such discoveries it cannot surprise us that a washed and dried bromo-iodide of silver plate is affected differently from a wet one; it is less sensitive for violet, but with long exposure it shows greater sensitiveness for green.

Numerous investigations are necessary to modify our former views about the sensitiveness of photographic plates, and particularly to bring a clearer understanding in the dry plate question.

I have to add a few words about what is called sensitiveness. When we take two kinds of collodion from two different sources, and make a portrait with either of them, one of them may perhaps yield a much more detailed picture, at ten seconds' exposure, than the other.

Everybody will pronounce the former more sensitive than the latter; but if we make several trials with those two collodions, and vary the time of exposure, we obtain a different result. I had two kinds of collodion which I tested in the following manner: with each one I made a triple carte de visite plate, the first plate was exposed for ten seconds, the second for twenty, and the third for thirty seconds.

A comparison of the two pictures, which had each been exposed for ten seconds, showed collodion number one decidedly more sensitive than the other. The two pictures of twenty seconds each furnished a like result, while the two of thirty seconds were exactly alike in detail. Collodion number two was, therefore, with such an exposure fully as sensitive as number one.

Something similar I have noticed when exposing plates to the spectrum. With a short exposure iodide of silver is much more sensitive than bromide of silver. With long exposure bromide of silver is much more sensitive for the red and yellow colors than iodide of silver. The practical photographer understands by sensitiveness the

ability to yield a detailed picture with a very short exposure. The sensitiveness with long exposure is an entirely different matter.

For my landscape photographs I prefer a slow collodion; one which with long exposure gives fine details. I prefer this to the sensitive ones which work rapidly but give overexposed lights.

Very truly yours, Prof. H. Vogel.

HINTS UNDER THE SKYLIGHT.

BY R. J. CHUTE.

THE EYES.

THE most important feature of the face is the eyes. In them are expressed life, love, joy, animation, goodness, and all that makes the human face attractive, and often bewitching. They also express the opposites of these, and may become equally repulsive. They are the windows of the soul. To them we always look when we would read the workings of the mind. To them the artist looks when he would measure the qualities of his sitter, and decide upon the light, attitude, and representation of character to be given him.

Among photographers the eye receives a variety of treatment. Mr. Southworth, at the convention at Buffalo, explained his method or rule of lighting the sitter to be that of screening the light till it became easy to the eyes. Mr. Frank Jewell, in Mosaics, also regulates the light according to the eye, but has a little different method. He regulates the position of his sitter and the light till the "catch-light," or little white spot in the eye, appears in both; this he claims gives a proper light for the face. The rule is an excellent one, and may be followed with full confidence in its success, for the formation of the eye is usually determined by the character of the face. Others work from the eyes by various methods, while some pay no particular regard to them, but work more by a general study of the whole features. The eyes, however, cannot be treated with too much care, as the success of a picture very materially depends upon the clearness, depth, and life given to them. And here I may remark that this is a matter almost wholly under the control of the artist.

Dark eyes are, perhaps, subject to the greatest abuse, and are often robbed of their life and brilliancy by reflections from surrounding objects, to which they are so susceptible. These reflections are sometimes from the carpet, from light screens, or from the walls of the studio. They are often very perplexing, and the best method is to exorcise all permanent tints that produce these effects, and be careful to move out of the way any offending screens. The old notion of blue walls and blue screens was a productive source of evil in this direction, and all the more so because it was deceptive. The blue reflection in the eye could not readily be seen, and yet it photographed From these causes have doubtless arisen the great difficulty in photographing light eyes. The reflections in them are not as readily perceived, even as in dark eyes, hence they have been, in days gone by, so literally and so generally extinguished, that the public had come to think that people with light eyes could never get a good picture. But the introduction of neutral tints, and the exclusion of everything that will reflect actinic light, has proved that light eyes may be photographed in all their fulness and beauty as well as dark ones.

In order to secure a natural expression of the eyes, they must be perfectly easy. A glare of light that causes discomfort should be avoided; the eyes should rest on some object that can be easily and distinctly seen, for there is nothing more trying than an effort to look at an object that is either too small, too near, or too far away to accommodate their natural focus. The artist who is observing, even if he does notunderstand the construction and anatomy of the eye, will soon learn to judge from the form of the eyes about where to place the In near-sighted persons they are generally round and full like a short-focussed lens, while a long-sighted person will have eyes with the balls more flattened; but it is always well to consult the comfort of the sitter in this respect; he then feels that you are mindful of the conditions that insure success, and that you will not overlook even the smallest item that may have a bearing upon the result.

One of the evils in this connection has

been the impression among sitters, arising, no doubt, from instructions they have received from time to time when before the camera, that the eyes are to be fixed upon one point, and not changed on any condition, nor even winked. Is it a wonder that we see cross-eyed and strained-eyed looking pictures? If an object be given the sitter to look at, it should not be less than three inches in diameter, nor more than six. cabinet card is a good size, and he should be particularly told that he has the privilege of examining it all over; let the eyes wander from one point to another with perfect freedom, and wink them naturally. A full and free expression of the eye is secured by those who can see at a distance by letting them look as far away as possible; give them no particular point to fix the eye, but let it wander freely into the farthest and darkest corner of the studio. The height of the eye should also be considered, and the rest raised or lowered so as to have the direction of the sight correspond with the position of the head.

(To be continued.)

ART STUDIES FOR ALL.

IX.

SHADOWS IN COMPOSITION.

64. In our last we considered the subject of lighting in connection with composition; we now propose to call the attention of the student to the opposite, or shadow effects, and make some suggestions in reference to the part they perform.

65. Shadows are natural attendants of light, and the student of nature will observe how one always balances the other. This is in accordance with the law of compensation that follows in everything throughout the universe, and it is only by a careful study of nature that we learn to distinguish the causes that influence us in viewing a scene, to pronounce it grand or insipid.

66. In reproducing what we see in nature by what is termed art, extensive shades contribute greatly to the beautiful as well as the grand and majestic result of the whole together; they equally serve to give richness and grace to the middle tints, and brilliancy, beauty, and animation to the

masses of light; they also afford a repose no less grateful and necessary to prevent the fatigue and overexertion of the sight on the illuminated parts. To this end, all the obscure or dark parts should be so arranged as to form one general mass, and its greatest force collected into some one part, where it will have the best effect, and become a principle on which all the others are in a graduated and harmonious dependence.

67. The photographic art student will readily understand the application of these suggestions to his daily practice. Whether it be a head, a three-quarter length, or a full figure, the application remains the same. The test of skill, however, is with the first of these, for it is only in that perfect blending of shadow with light, rounding up to the highest part where the pure light is but a mere point, and falling off through the delicate gradations of tints into the deepest shadow, that a head can claim to be artistic in composition of light and shade.

68. It is gratifying that the days of white pictures have passed, and it has been demonstrated that extensive shades are admissible in a portrait, as well as in a landscape where rocks and hills cast their grim shadows and give grandeur to the scene; that a face may receive the same treatment at the hands of an artist that nature accords to her works everywhere, and be more truthful, more pleasing, more life-like. The shadows and middle tints give support and brilliancy to the lights; there is no glare; the eye does not tire but wanders from point to point continually attracted by the sense of completeness and repose that characterizes the whole. An important consideration in a bust portrait is to give it a well-shaded background, the deepest parts against the lights in the model; this is indispensable to the brilliancy and beauty of the face.

69. In the more elaborate compositions of figures and accessories, shadows may be made effective by a judicious arrangement of the several parts, especially the draperies, the whole being based on some part in which the depth of shadow culminates, and from which the eye is led to the principal subject of the composition. In reference to this mass of shadow, whether in a bust or

full-length portrait, it need hardly be observed that even where most vigorous, it should not be a mere blot, which obliterates wherever it is extended. The occasions are very few, where either the form or the proper color of objects can be thus totally lost, because objects in the strongest shade are only deprived of direct light; they are more or less illuminated by the surrounding atmosphere, and the reflected lights from other objects.

70. This is a point that requires great care on the part of the photographer; to so arrange his light that the form and detail in the deepest shadows will be given. In many of the so-called Rembrandt or shadow pictures, this blot of shade is a grievous defect, and mars the beauty of many an otherwise beautiful production.

71. The artist with brush and color may give the form in shadow at will, and study the effect of every touch he makes; but the artist photographic has not the same control over his work after the impression is once made, except by retouching the negative, and the basest use of that indispensable adjunct of the art is in supplying what is actually lost or wanting. In a perfect negative impression there should be nothing lost-no blanks of either light or shadow. As all means are legitimate in producing a work of art, so long as the method is not apparent in the result, the photographer should not hesitate to avail himself of any device that will assist him in representing the truth of nature.

72. When in producing the shadow effects the hair is dark and gives too heavy a mass of shadow, it may be lighted with a slight touch of powder so as to give all the detail, and yet not appear in the finished picture that any artifice whatever was resorted to. This is much better too than using reflected light in the shadow, so long as the face does not need it. One of the worst effects that can be produced is the wasting of a natural shadow by throwing in a false light for the purpose of illuminating some other part. It is much better to employ some of the more happy artifices, such as a little paint or powder, a little different arrangement of the folds of a drapery, which may be made to break up too dense

a mass of shade, or the contracting or extending of accessories, so that reflexes may be obtained wherever they will produce the best effect.

SOMETHING ABOUT PLAIN PRINTS.

BY M. COSTELLE EDGERLY.

(Continued from page 74.)

Now we come to the treatment of copies. We have to copy often, old card photographs made perhaps in early photographic days; as yellow as gold, and the albumen surface veined with seams and crossed in all directions by minute breaks in the albumen. Enlarged to even the ordinary three-inch head, we have the face divided into sections, like a railroad map, by immense fissures and chasms. This has rather a dubious appearance; but there is no cause for any alarm as to the final issue. Only do not make a print from the negative, as it is in its native rugged state, and send it to be finished. There will be no high-lights in a print from such a negative. Yellow, photographs dark -an assertion which although not original with me, is nevertheless true, and one of which it is too frequently my painful duty to remind many a first-class photographer. Then where the high-lights should be, in this copy of a time-yellowed photograph, will be half-tone, possibly three-quarter tone. This cannot be entirely remedied by the artist. By making the shadows very deep, he can always brighten other parts of the face by the contrast; and he can (and too often feels compelled to) resort, in addition to his legitimate means, to that crime against good taste, of using chalk for lighting ink pictures, and mixing color with white paint, for water-colors. This is detestable; and the more so, when five minutes of careful manipulation of the negative before printing, would obviate all such necessity.

Varnish your negatives with retouching varnish; then with cotton-stump and powdered lead, go over all those portions of the face where high-lights should be; pay strict attention as you go to the copied photograph, that you may not produce a light where rightfully belongs a shade, and thus

make a change in the likeness, which may cause the artist much trouble and labor to Then, with a soft pencil, work along on these crossing and recrossing lines of shade, caused by the breaks, making them to correspond as nearly as possible with the surrounding portions of the face. Better make them lighter though, than otherwise; for you will remember that white can be made to receive any shade of color, either light or dark; but that which is printed dark cannot be made lighter, and at the same time present a respectable appearance; for black is independent and obstinate, and will keep its personality, in some degree, to the last.

Any artist who lives where he can visit the gallery from whence he receives work, will be willing to attend to the negatives himself; but if the work has to be sent any distance to be finished, the retouching of the negatives must be left to the photographer, and in most cases he will be not only willing but anxious to receive instruction in anything that will better his work.

Even in preparing cheap pictures it is best to try always for the best effects, although the price will not admit of an elaborate finish. I will not speak at length of the unselfish motive, in giving great satisfaction, with but little extra labor, to those not able pecuniarily to pay for the best work; but I will mention another consideration

The mass of people who look at a picture on a friend's wall, do not ask "How much did you pay for this?" but, "Who made it?" and the reply is invariably the name of the photographer who received the order; the artist is usually unknown.

The majority of people, in passing judgment and making comparisons, never think of inquiring into the difference between the prices, but invariably pronounce the photographer from whose rooms the superior picture came, the "best artist." Do not understand me as advocating an equal amount of work on pictures of all prices; but I do most unhesitatingly denounce the odious practice, of undue negligence regarding the negatives and prints of cheap pictures. Although the work may be far from fine, there is no excuse for a lack of effect in the very cheapest of productions,

and the foundation for this must be laid in the work bestowed on the negative.

I will now mention the orthodox manner of dealing with copies, when changes in the drapery are required to be made.

Before beginning, however, I wish to make an apologetic bow to those who know all about it, and say that I am not instructing them at all; only those who need and desire such information.

Many of you would be surprised to know how lamentably deficient many otherwise good photographers are in this department. If I had not personally instructed so many, and had seen the sad need of instructing ten times as many more, I should be incredulous too. I suppose the reason is, that many had not until quite lately, had much copying to do; and feeling more interest in their so-considered more special province of making albumen photographs, have not devoted the necessary time to the ways and means to be employed.

We occasionally have pictures to copy, of gentlemen with high, closely-buttoned vests, which it is desired should be made open in the painting, displaying the white shirt-bosom, collar, and tie. Now, is it not a severe strain on the credulity to believe that any one in his right mind, would have so little thought (to speak very mildly indeed) as to send a print from the negative in its primitive state, expecting a brush and water-colors to hide this black mass of broadcloth and buttons with the snowy plaits of a shirt bosom? Yet such prints are sent frequently, and very promptly returned.

One would suppose that even a stranger to our ways that are so dark, would see that this thing never could be done in a way to disguise the apparent fact, that the man was suffering from cold and wore two vests of different pattern, with a very thin white garment between; for the undervest certainly could show itself through the bosom of the shirt.

A piece of paper, the size and shape of this ungainly garment, then, should be pasted over it in the negative, which will cause in the print a white space, whereon the artist has the opportunity of exercising his skill and manufacturing the missing garments to his own taste. Perhaps the background is spotted, clouded, and scratched—then by the process known as double-printing, make a smooth, even, light background, on which anything can be accomplished; or if the picture is to be ink, the print may be made with a white ground to be finished in vignette form.

The process of double-printing is a very necessary and quite simple one. First make a print; then cut with great caution and a keen knife, the face and figure-or all that is to be a part of the completed work, from the remainder - or that which is to be changed. Fasten this discarded background by the corners to the film side of the negative, and allow the face and figure to print as long as is necessary. Then, as expeditiously, and in as dark a corner as possible, remove both background and negative from the printing-frame, insert instead a perfectly clean square of glass, and the new print, which is now on a white background. Now place the other part of the first print over the figure, that it may not become darker, and allow the background to acquire the desired uniform depth. This method is well known and long practiced by most photographers, but there are many who are quite innocent of ever having resorted to any such expedient.

Supposing we have a picture of a gentleman with his hat on, sent, accompanied by a description of the concealed forehead and hair, with the request that the hat should be removed.

The course to be pursued in this case, is to make a print and cut out the face and form, leaving on the background the hat together with the deep shadow that it casts on the forehead. Fasten this to the negative (after touching out any dark foreign spots or scratches which may be on the face); make your print on a white background. The background must not be printed at all in a case of this kind, on account of the forehead, which is better unprinted.

In short, every part of a copied picture which is to be removed at all, should be blocked out in the negative, leaving a white space.

The most of my acquaintances among photographers are large-hearted, and willing to do almost anything for the sake of

conferring a favor if nothing else; and in addition their minds are ever filled with the desire of increasing their knowledge and rising higher in their well-beloved art. I am sure it occasions an artist as much sincere regret to be compelled to return a print, with an expression of dissatisfaction, as it does the photographer to receive it, and to number it among his other trials and vexations of the day. I, for one, do above all things dislike to make such a return.

It is desirable that there should be greater unanimity between the photographer and artist, and when such a feeling has become universal the many good results will speak for themselves.

On all those who desire and work for such existing harmony between our two brother-hoods, I pronounce a benedicite.

WRINKLES AND DODGES.

A CURIOUS APPLICATION OF PHOTOGRA-PHY.—Mr. Ottavio Baratti, Piverone, Italy, gives us a new and novel use for photogra-



phy. Hesays:
"I had some fruit trees that wanted pruning, and there was no intelligent or active gardener at hand; time was passing rapidly; what should I do? I photo-

graphed my trees, and sent the photographs to an establishment in Turin. The next day I received them back pruned in a masterly manner, as shown in the sketch. I did the rest."

The following also, all speak for themselves.

HERE is a little dodge that I just discovered to-day, that may be of use to the readers of your Journal. All photographers are called upon to copy gems that have been sent through the mail; sometimes they become kinked or creased in transmission. They can be pressed out smooth by passing

them through the photographic roller, taking care to protect both sides with paper, which gives an even surface to copy from.

C. O. CHAPMAN.

AFTER being considerably perplexed over the prepared mounts on account of the prints peeling off, I discovered the following, which if you think proper, an insertion in the *Photographer* may be welcome to some of your readers.

If prints mounted on Slee's Prepared Mounts be pressed carefully with a damp cloth, instead of a dry one, they will not peel. The dampness on the surface prevents curling until the mucilage takes hold.

James Hadden.

A LITTLE DODGE.—A very nice thing to cut paper or trim photographs, is a "magic glass-cutter," that sells for fifty cents in the hardware stores.—J.

An acquaintance dropped in the gallery the other afternoon, just as I was about toning my prints, and he complained of having his prints tone unlike. Each dishful would be different in color, so I showed him my method, as follows: After the prints commence to tone, I place an untoned print in the gold solution, and by contrasting the prints already in the bath with the one placed in afterwards, you can judge at once of the tone. It is of a great deal of use to me, and may help some one in a fix like my acquaintance was. Until I tried this method I used to overtone fearfully.

J. H. HUNTER.

As I have often received benefit from the "Wrinkle and Dodge" column, I would like to contribute my mite. I have seen many ways of cleaning off varnished negatives, but of course like my way best, and as I have never found any one using it, only as I have taught it to them, I will give it for the benefit of all. I proceed as follows: I take my varnished negative and pour on it a little concentrated ammonia, rubbing it well over the surface, then setting it in a level place, pour a little more on the centre of the plate, and prepare another the same way; then lay the varnished sides together, and serve another pair the same way; continue doing so till I have a dozen or two in

the pile. Then set a weight on top and let them lay an hour or so, when the film will easily come off, and after thorough rinsing the plates are ready for albumenizing. I cleaned and albumenized fifty \(\frac{1}{4} \) glasses in a little over an hour a short time since. It is much the quickest, and I think the cleanest method I have ever seen published.

CHARLES A. PALMER.

I go home and sleep in peace now; no fears of wetting my neighbors. The cure of a leaky skylight is effected in this way: I procured a tinman's services to construct a gutter for each rail, shaped like the letter V, about one inch and a half deep. If there is an iron bar across the light, cut into the gutter sufficient depth to admit a portion of it. At the bottom of the light a cross gutter receives the droppings from all the parallel gutters, and a small pipe, say one-balf inch, leading outdoors through the sash, entirely prevents trouble within.

Another.—Glass patterns are so apt to get the corners knocked off, and so difficult to handle, I have remedied mine by cementing an old chipped one to a good one, placing back to back; this gives a capital handle, and works to a charm. A narrow slip of sticking-paper, say one-sixteenth of an inch, all around on the face of the glass you use for a pattern prevents it slipping, and helps to save the corners. Stick the glasses together by using balsam of fir.

Slee's Mounts.—If using the above mounts, take prints direct from the washing (dripping wet, one at a time), lay on the mount and pass through a clothes-wringer (not too hard a pressure). After sufficient are mounted to cover a sheet of blotting-paper, remove the surplus water with another sheet, with once rubbing, then remove and stand upright until they curl slightly, then roll and put under light weight.

E. T. WHITNEY.

To clean a silver-bottle, pour in a strong solution of cyanide; shake a few times, pour out, and rinse with water two or three times, and your bottle is perfectly clean. Keep the solution, and filter and strengthen when required. By doing this you can sun your bath better in two hours than in

a week's exposure in the dirty black bottles photographers appear to delight in.

Strong cyanide is the best thing I know of to clean glass plates. Rub both sides with a sponge tied on a stick, then rinse in water, when the glass will be ready for albumenizing if you use that for a substratum. I do not use a substratum, but rub the plates as I take them from the water with whiting, letting it dry on. Plates so prepared will keep any length of time. When wanted for use rub off the whiting with a DRY chamois leather, and you will have a clean plate and one on which the collodion will stick.

PHOTOGRAPHY IN ITALY.*

MESAGNE, January 20th, 1874.

To the Editor of the

PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: You have seen our beautiful peninsula, but alas! too hastily to have been able to thoroughly appreciate all its beauties. The land of arts requires long and intelligent observation to reveal itself in its true aspect; and you, sir, have not been able to unite long and patient researches with intelligent investigation. The photographic art, which forms the subject of your special attention, must have cut a very sorry figure in this cursory glance that you were able to give. In truth, the colossal establishments -the great artistic industrial societies-the immense stock-houses of the new world, which are devoted to photography, and which provide for all its intellectual and material wants, have no counterparts with us. Nevertheless, in the series of letters which I intend to write you, I shall try to show you all that we possess pertaining to our art. I will give special prominence to the most interesting studies and experiments of our workers in the art-science,

who, with a modesty equal to their merit, circulate their interesting productions in the most restricted circle, disdaining every species of notoriety, every interested exposition of their discoveries.

I will commence by mentioning Sig. Sobacchi, an industrious and intelligent young man, who has recently perfected a carbon process which he calls totantracografia, by means of which he obtains directly from the original itself and without apparatus (?) most correct and permanent copies in any tint whatever. A bichromatized gelatin paper is placed in contact with the original and exposed to the light; after the printing it is developed by passing over it by means of a brush any color whatever, which brings forth the picture in all its most minute details. It is then washed sufficiently and drying makes it complete, except the coating, when necessary, with a white and transparent varnish.

I inclose with this a few prints by this process, which will enable you to judge of the perfection with which the various details of the original are reproduced.

Photo-lithography now possesses also amongst us a skilful worker. Signor Marzocchini, of Leghorn, has succeeded in easily obtaining photo-lithographic productions exceedingly well executed. The process which he employs is very simple.

He prints his pictures on bichromatized gelatin paper, develops them by passing over them a fatty ink, by means of a roller, and then transfers them to the stone, and prints with a press as usual.

I take pleasure also in sending with the present a proof mode by Marzocchini, which reproduces from an engraving a scene in Venice.

The processes recommended by the photographic journals make but little headway in Italy. I cannot tell you why, but I believe it is owing in a great measure to a want of enterprise, and an aversion to change.

When an Italian photographer has tried a process and has succeeded in obtaining from it good and regular results, he does not willingly abandon it for another which is recommended to him as being better.

Retouching the negatives was tardy in

^{*} Our readers will be glad to know that as another result of our jaunt on the Continent, we have secured a valuable Italian correspondent in the person of our friend Sig. A. Montagna, editor of the Rivisita de Fotografia, and we hope to have notes now from the land of the sun and of fine art, monthly.—Ed.

reaching us, but now the brush and the pencil have become indispensable instruments.

Apropos of retouching I wish to mention to you a method which succeeds remarkably well with me in the correcting of very weak negatives. I commence by printing from the defective negative a positive on paper, and then from that positive a negative also on paper. I fix without toning it, and then whilst still wet I place it on the back of the negative, to be corrected in such manner as to make the outlines of the picture coincide, viewed by transmitted light.

I allow it to remain until perfectly dry and smooth, then with an ordinary peneil I perform by transmitted light the retouching necessary to increase the brilliancy of the lights, and by the means of varnish I render transparent those parts which I wish to make darker in the print.

Printing with negatives prepared in this manner requires more time, but the effect obtained compensates for it with usury. Other merits of this process are the facility of retouching and the greatly softening effect which this presents owing to the diffusion through the glass which is between the two negatives.

You have no doubt read in the *Photogra*phic News of December 5th, the protestation of Mr. W. Marquand concerning my actinometer.

This gentleman asserts that my instrument is constructed on a principle precisely identical with that described by him some time back in the same periodical. The date of this description not being given and not having been able to ascertain it, notwithstanding my persistent applications to Mr. Simpson, I will state simply that the actinometer was invented by me in 1869, and described the following year in my Photographic Review, of which I send you a copy.

In my next letter I will write to you about some most interesting experiments, and meanwhile I cordially salute you.

· A. MONTAGNA.

REFER TO YOUR BOOKS. We publish one or more works suited to the trials and troubles of every department of photography. When you are tried or troubled in your work you would do well to consult them.

PHOTOGRAPHY IN FRANCE.

ALL the activity of investigators is now directed, in France, to two principal objects: firstly, the substitution for the printing processes with salts of silver, of others which give indelible prints, such as earbon photography, heliographic engraving, or printing with fatty inks; and secondly, the improvement of the enlarging processes.

The first of these problems had been partly solved some time back, thanks to the labors of Poitevin; but if the principle discovered and employed by him was good (so good that to-day, after many more or less successful researches, it is to this starting-point that we have returned), the two methods to which he has given birth, carbon photography and photo-lithography, did not give, practically, results sufficiently complete to warrant their being readily and exclusively adopted.

It was necessary, therefore, to make still further improvements in the manner of working. Every one set to work, and today it is very evident that these processes are neither less permanent nor more complicated than the salts of silver processes, and that they furnish pictures equally perfect.

Notwithstanding this fact, our photographers who, whatever they may say, are too much given to routine, would have still remained undecided had not a few men whose names are known to us all, entered boldly the new paths.

Mr. Pierson, one of the first and oldest photographers in Paris, in partnership with Mr. Braun, his son-in-law, and who is also the son of the celebrated photographer of Dornach, has just reorganized his establishment so as to work on a large scale the carbon process. All the portraits which will come from his establishment, from the carte de visite to the large size, will be printed by this process, and I am sure that the public will not complain. Messrs Pierson & Braun have even succeeded in transferring the image from the temporary support to the painter's canvas, so that, confiding these sketches so easily made to an artist, they can deliver to their patrons oil paintings for which no fears need be entertained of future fading, as is the case sometimes with pictures made with the salts of silver.

By this process they have formed in their establishment a small art gallery, which is the reduction of the collections of the Louvre. The principal pictures of this national collection which came near being lost by the burning of the Tuileries, in 1871, have been reproduced by them, printed as I have just described on canvas, and then painted by artists who have applied themselves to reproduce the colors of the originals. They are thus enabled to sell to the trade, at prices within the reach of all, reduced fac-similes of the masterpieces of the various schools. This is a means of popularizing works of art whose importance will soon be appreciated.

Another large house in Paris is now preparing to substitute carbon photography for the ordinary printing processes, and other establishments will soon follow this example.

In regard to photo-lithography, or rather the printing by chromatized gelatin and fatty inks, it has also reached a point of practical application.

I have before me a charming album, in folio, containing twenty-five reproductions of the original designs of works which have figured at the exhibition of paintings in 1873. The whole is appropriately bound, and is sold to the public at fifteen francs (\$3.00). Now, these productions, which possess great interest, for they are veritable fac similes, have been executed and printed in great numbers by the following very simple process: An ordinary photographic negative is taken from the original, then there is placed under this negative, in the pressure-frame, a sheet of papyrolithe. This is a thick paper prepared by means of gummy (bichromatized) substances, to which is added gum guaiacum, and for the discovery of which we are indebted to Mr. Fleury Hermagis. The frame is exposed for a few minutes to the light, exactly as is done in printing with the salts of silver. The sheet is then taken from the frame and plunged into a tank filled with water, in which the portions which have not been acted upon quickly dissolve. During this operation the artist spreads on a glass plate a small quantity of transfer ink, and charges with it a printer's roller, as uniformly as possible; then he removes the sheet from the bath, and after having slightly drained it, lays it on a second

glass plate to which the dampness will cause it to adhere. The image is already perfectly visible, and appears of a yellowish-brown. After inking, which is done with the greatest ease by giving a few turns of the roller, the picture has all its boldness, and all the details show themselves with extreme delicacy. When there are but a few prints to make, the first image may be made use of by inking it each time that a print is made under the press; but in reality the image on papyrolithe is intended for reproduction on stone. This operation is performed in the same manner as the lithographic transfers. Instead of using the ordinary lithographic stone, a transfer may be made on zinc, and by means of a mordant an engraving in relief may be obtained; or if wood is used we have a drawing ready for the engraver.

But the process of Mr. Fleury Hermagis is only suitable for the reproduction of line work, whilst that of Mr Geymet may be used for printing views and portraits from life. It is now in practical operation, and we have before us specimens that will favorably compare with the best prints made with the chloride of silver.

In factit is Poitevin's process modified in the details, and made more perfect in its operation. The stone, greased with care, is covered with a coating of gelatin composed of two solutions, prepared separately, the degree of fusion of the substances employed not being the same.

The gelatin (Grenétine), so named from its manufacturer, M. Grenet, of Rouen, is obtained from the skins of young animals, and the cartilages of the calf; it is prepared with great care, and is sold in very thin and transparent sheets.—From Monckhoven's New Treatise.

First Solution.

Water, . . . 200 c.c., $6\frac{3}{4}$ fl. oz. Gelatin (Grenétine), 12 grammes, 185 grs.

Second Solution.

Water, . . . 400 c.c., 13½ fl. oz. Fish Glue, . . 12 grammes, 185 grs. White Glue, . . . 12 grammes, 185 grs.

These dissolved separately with heat, are mixed and filtered, then 12 grammes (185 grains) of bichromate of potash are added.

The preparation of the stones with this mixture is made in a room with a temperature of from 30 to 50 degrees Centigrade, equal to from 86 to 122 degrees Fahrenheit.

After exposure to light, the stones are plunged into water for two hours, in order that all portions of the coating which have not been affected by the light should be dissolved. The other operations are the same as in ordinary lithography. I repeat, that in the hands of Mr. Geymet, this process has become entirely practical, and gives excellent results.

But a new printing process, which has already made considerable progress, is that devised by Mr. Léon Vidal, the zealous founder of the Photographic Society of Marseilles, and published by him under the name of photographic polychromania. The specimens that he presented to the French Photographic Society at its last meeting caused general admiration. They might be called charming miniatures.

Mr. Vidal has just organized a special establishment at Marseilles, and I hope shortly to be able to send you some of his attonishing colored prints. A novelty, which has been warmly welcomed, is the process for reducing the time of exposure, recently made known by Mr. Melchion. It consists simply of a previous and very short exposure of the plate to the light in the camera itself. Two of our principal Parisian portrait photographers, Messrs. Frank and Liébert, have adopted this system, recognizing at once its very great advantages. I give you Mr. Liébert's mode of operating:

The objective he uses is furnished with a stop, whose brass periphery is lined with cloth in the inside, in order that it may be removed without effort. In the centre of this stop a hole is made, equal at least to the half of the diameter of the front lens; this opening is closed by an opal glass whose softened ground side should face the lens. On the front of this stop is fixed a shade of blackened sheet-iron, which moves by means of a hinge fixed to the upper portion of it, allowing the lens to be covered or uncovered at will without disturbing the stop.

When the sitter is focussed as usual, the objective is covered with the stop, which is furnished with the opal glass and re-covered

with the shade; the softened ground glass is replaced by the frame containing the sensitized plate; then the frame is closed. The shade is then raised for an interval of time, which may vary from one to five seconds, according to the intensity of the light and the length of the focus of the objective; then the lenses are unmasked by quickly removing the stop, which is replaced as soon as the pose is finished.

We see that by this process the time is reduced at least one-third, and that nothing is changed in the ordinary operations, which may be performed so rapidly that the sitter not only feels no fatigue, but is not even aware of its use.

Before development the plate is again plunged into the silver-bath. As I said before, many photographers have already adopted this system.

ERNEST LACAN.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

A Substitute for Albumer: as a Preliminary Conting.—Sulphate of Zinc in the Developer.—Dry-Plate Development.

A Substitute for Albumen as a Preliminary Coating.—Mr. Tunny has recently called attention to the value of gelatin as a preliminary coating for plates, being less liable to injure the nitrate bath, and possessing some other advantages. His mode of proceeding is as follows:

"After the new plate or glass has been subjected to a bath composed of nitric acid and water (one ounce nitric acid to twelve ounces water) for a few minutes, the surface is well rubbed with a linen pad made in the following manner: Take a long strip of linen about three or four inches broad; roll it tightly round a pencil till it has a diameter of about one and a half inches; tie it tightly with a cord, draw out the pencil, and cut the end of the roll square. You have now a glass cleaner which will save the fingers, and prove a most effective agent in cleaning the plate.

"The plate or glass having been well rubbed, rinse it thoroughly below the tap, and then it will be ready for the following substratum:

"The gelatin had better be soaked in cold water for a few hours, and then as much boiling water added as will dissolve it. Care must be taken, however, that the gelatin be not in excess of the quantity indicated. Filter as much into a lipped measure as may be required.

"Take the glass, hold it horizontally, rest the lip of the measure on the corner of the glass, flow the fluid over the plate without lifting the lip of the measure from its contact with the glass: this secures immunity from air-cells. Let the fluid now be run off at the opposite corner, and tilt the glass so that the last drops may run round the four edges of the plate. This is necessary, as the edge has sometimes a tendency not to take kindly with the fluid.

"As each glass is coated, place it in the rack. After they have been drained a short time, if they are required for immediate use they can be dried off at the fire, or be left spontaneously to do so.

"The surface has all the appearance of albumen, but is not so easily affected by damp. I have used this method for such a sufficient period as to confidently reconimend it to all. If the plates are old and have been varnished, the following method is the most expeditious and best of any I have tried. To remove the old coatings place plate after plate in a bath, of methylated spirit seven ounces, nitric acid one ounce, and in about ten minutes the whole film leaves the glass in one sheet. Rinse the glass under the tap, apply the gelatin substratum, and you have a glass as easily prepared and clean as if it were a new one. Avoid strong boiling solutions of soda or potash, more especially with patent plate, as they attack the surface and leave innumerable stains that no after means will remove."

Sulphate of Zinc in the Developer.—Mr. T. Gulliver, one of my correspondents, speaks of the value of sulphate of zinc in the developer, as aiding in the production of fine

results and economizing acetic acid. He says:

" Take

Sulphate of Zinc, . . 2 scruples.

Water, 5 ounces.

Mix and filter.

"Of the above add three ounces to two ounces of glacial acetic acid, using the mixture for the developer in about the same proportion as usual, but, if anything, rather less, as the effect of sulphate of zinc is to confer greater density. A larger proportion may be used with advantage, when copying maps, engravings, &c., where lines, not flat tints, form the shadows of the picture.

"The negative develops slowly, and the deposit is very fine. The negatives are dull in appearance when dried, but this disappears when the negative is varnished."

Dry-Plate Development.—I mentioned a few months ago, the enormously strong alkaline developer which Colonel Wortley has found it possible to use with advantage. He recently communicates his further experience. He says:

"You will remember that I have shown you on various occasions the difference in density produced in negatives developed respectively by small and large amounts of ammonia, and you are also aware that the sensitiveness of a plate is enormously increased by being developed with strong ammonia. It is interesting to notice that the density of plates varies also very much in using weak and strong pyrogallic acid solution, but with the important difference that there is little or no loss of sensitiveness. Thus, then, I find that the proper way to develop a dry plate is to commence with extremely little pyrogallic and the maximum of ammonia, and gradually to work up the density by small additions of pyrogallic solution, as the density and character of a negative are in this way much more under control.

"Another modification that I find of the greatest value is the addition of gelatin to the developer; it enables one to reduce the bromide by three-fourths of the quantity that would be necessary did we not avail ourselves of the services of gelatin; and we thereby get the advantage that the gelatin,

though restraining the negative, does not affect the production of detail; whereas it is well known that bromide, if used in at all too great quantity, has great effect in destroying detail in the shadows. The gelatin ean even be used as the restrainer without any bromide at all. It should also be noticed that the gelatin helps greatly in giving an even development to the plate, and the delicacy and printing color of the negative are unusually good.

"Another advantage gained by using the gelatin as a controller is, that it enables one to use a strong developer made with liquid ammonia with no danger of stains or unequal development.

"One more thing I have found of great use during the past summer, viz., the development of dry plates by fuming with ammonia. This is of especial value with collodion dry plates in the printing of transparencies, as the deposit is extremely fine and delicate; and those who are using gelatino-bromide will find it simply invaluable, as it does away with nearly all the annoyances that some gelatino-bromide films give in consequence of their uncertain behavior under aqueous developers.

"In my practice I use glycerin on the plate to retain an even moisture during the fuming process."

SOCIETY GOSSIP.

Photographic Society of Philadelphia, March 4th. Mr. Partridge exhibited a negative made with some emulsion prepared by Col. Stuart Wortley, of London, in the summer of 1872. The negative was very clean and good, and had been exposed for three seconds only, and even then had to be restrained in the development, which was very rapid.

Dr. Seiler exhibited an improved tube and lens adjustment for microscopic enlargements. He also remarked upon the difficulty of getting a clean negative from microscopic slides prepared with the blue coloring matter known as hematoxalin, and said that the best method in his hands had been to interpose a plate of yellow glass, which increased the vigor and contrast in the negative, at the expense, how-

ever, of the exposure, which had to be increased.

The Chair remarked upon the fact that blue glass would not answer as well as the ammonio-sulphate of copper cell for this kind of work, especially when condensed light was used. The cell served the double purpose of intercepting the heat rays and correcting the objective.

On inquiry, as to whom the discovery of the use of the ammonio-sulphate of copper cell was due, the Chair replied that he believed that Mr. Butherfurd, of New York, had made the discovery and communicated it to Dr. Woodward, U.S.A., Washington, by whom it was first used.

Mr. Corlies exhibited a print from a dry tannin negative, taken on a plate prepared in 1867.

BOSTON PHOTOGRAPHIC ASSOCIATION, February 6th, 1874, annual meeting. The election of officers for the year 1874 resulted, viz.: Mr. E. J. Foss, President; Mr. W. T. Bowers, Vice-President; Mr. Charles H. Danforth, Secretary; Mr. E. F. Smith, reelected Treasurer; and Messrs. D. T. Burrill, T. N. Phillips, and B. B. Wilson, the Executive Committee.

Messrs. Black, Foss, and Smith addressed the meeting as to the future of the Association

Mr. R. B. Lewis was elected a member; after which a vote of thanks was passed to the retiring officers, and the meeting adjourned.

The regular monthly meeting (for March) was held at Mr. Black's studio, Friday evening, March 6th.

Mr. Burrill, one of the Executive Committee, tendered his resignation, which was reluctantly accepted, and Mr. Black elected to fill the vacancy.

The Executive Committee for the year 1873 was then called on for their report, which was deferred at the last meeting, and made the following report:

We have examined the books of the Secretary and Treasurer and find them well kept. We find a number of names that are delinquent; also a large number that are prompt and regular in paying their dues; that the past Secretaries have been dilatory in hav-

ing persons joining the Association sign the constitution.

We would therefore recommend that the present Secretary be instructed to have every member sign the constitution, so there can be no question as to the legal standing of our members.

AUGUSTUS MARSHALL, FRED. C. Low, Executive Committee.

On motion, the report and recommendation were adopted.

On motion of Mr. Loomis, "that all persons having paid their initiation fee previous to this meeting shall be recorded members," was adopted.

The business of the meeting being finished, a short time was taken up in a social manner.

Mr. T. H. Brooks, of the firm of Chute & Brooks, Montevideo, South America, was present and introduced to the meeting

Some fine pictures were brought in for exhibition by members of the Association. Mr. Burnham had a very large view, which was much admired; also a fine half-length portrait, which was beautiful. Mr. Hardy, also Mr. Stevens, had a large collection of cabinets, which were clean and fine in detail.

Mr. Foss exhibited some very fine large albumen prints, and some album heads mounted on glass, which gave them a soft and delicate appearance. This style of mounting fills up the pores of the paper and gives the picture a very smooth look, not showing the fibre of the paper. He had also a head-rest, with an improved arrangement at the top to hold the head, that was very firm and substantial.

Regrets were expressed at not seeing Mr. Edward L. Wilson, as was expected, and the President stated the cause of his absence. Also that Mr. Anthony was unable to attend this meeting, but would at some future meeting not far distant.

About fifty persons were in attendance.

GERMAN PHOTOGRAPHERS' ASSOCIATION (New York), March 5th.—For officers for the ensuing year, the following gentlemen were elected unanimously:

President, Mr. W. Kurtz; Vice-Presi-

dent, Mr. P. F. Weil; Recording Secretary, Mr. A Baumgarten; Corresponding Secretary, Mr. Edw. Bættcher; Treasurer, Mr. L. Nagel; Financial Secretary, Mr. G. Gennert; Librarian, Mr. A. Martin; Custodian, Mr. W. Trapp.

The Secretary's report, after recapitulating the most important subjects brought before the meetings during the last year, showed an increase of sixteen in the roll of membership, making the whole number seventy-one, of which forty-eight are residents of New York and environs, and twenty-three of other cities.

The Treasurer reported a balance of \$1068.72 in hand.

The Librarian reported the collection of photographs to number 615 pictures of all styles and sizes. The library contains 200 hound journals and books, and 150 unbound journals. The Association's property was augmented further by a large show-frame, made especially for exhibitions, together with a considerable number of frames and passepartouts, and lastly, by a medal, awarded at the last American Institute Fair.

All reports were received with applause and great satisfaction, showing a flourishing state of affairs and steady progress.

No More Royalties for Silver-Saving Patents.—Messrs Kurtz and Kleinhaus have obtained at the Patent Office in Washington, a caveat for precipitating metallic gold and silver out of spent photographic solutions by galvanic batteries. This caveat the above gentlemen have turned over to the German Photographers' Association, and this Association permits every photographer in the land to use such galvanic batteries for the purpose the caveat was entered and granted for.

Presuming that every photographer knows enough about galvanic batteries to make a long description unnecessary, the secretary suggests that "a Smee's battery is the most desirable. It will work for four or eight weeks without any interruption, when it may be found necessary to supply a fresh solution of sulphuric acid, and to amalgamate the zinc plates. Besides the first cost of about \$5, there is no further expense worth mentioning. The whole pro-

cess is simple and cheap, and does away not only with the noxious sulphuret of potassium itself, but with the royalty attached to its use also "

PENNSYLVANIA PHOTOGRAPHIC ASSOCI-ATION (Philadelphia), March 16th.—The medal for the best cabinet picture was awarded to Mr. H. C. Phillips.

Voted that the Secretary be instructed to inquire of Mr. Shaw in what case, or court, the extracts from Regnault's *Chemistry* were cited as evidence against his claim.

Mr. Carbutt exhibited a large number of very fine Woodbury prints, bound in book form, which were examined by the members, and elicited much praise.

After considerable discussion as to what kind of picture was most instructive, the good or the bad, a committee was appointed to consider the matter of awarding a medal for the best *print* to be made from a rather poor negative; the style of printing to be left to the printer.

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues.

All remittances of back dues, and fees and dues for new members, should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Life Members received in March.—P. C. Nason, Columbus, O.; O. C. Bundy, Virginia City, Montana; A. W. Phipps, New Castle, Pa.; and R. Shriver, Cumberland, Md.

It will be seen by reference to the proceedings of the Executive Committee that the fees for life membership are to be raised, and we would suggest to photographers the expediency of coming in now.

The Postal Card.—Every member has been sent a statement of his account with the Treasurer; only a few have responded. Arrangements for the Chicago Exhibition cannot be made with an empty treasury. If

you want the Association to continue remit now.

Information for exhibitors will be given next month. The rules will be substantially as heretofore.

Contributions to the Debt Fund:

Heretofore acknowledged,	\$423	00	
Carson & Graham, Hillsdale, Mich., .	5	60	
L. A. Gillette, Saline, Mich.,	3	00	
Z. P. McMillen, Galesburg. Ill., .	1	00	
A. S. Barber, Willimantic, Conn., .		40	
J. M. Morton Paluxy Mills, Texas, .	1	00	
O. C. Bundy, Virginia City, Montana,	6	00	
Less errors in crediting to this fund	\$439	40	
when money was intended for dues,	8	00	
	\$431	40	

The Right Spirit.—Mr. P. C. Nason, of Columbus, O., writes as follows: "A few days since, I received a postal card calling for \$2; advance in dues. Inclosed please find the amount. Had I understood this it would have been paid at Buffalo, as I have always prided myself in being prompt with all associations of which I have been a member.

"You seem to think the 'panic' has been the cause of delay in members not remitting the 'extra or advance dues,' but I attribute it to a misunderstanding of the conditions. I was well aware that the annual dues had advanced from two to four dollars, but never dreamed for a moment that this affected old members, or rather those members who had paid their regular dues up to the 1874 meeting, but supposed it did not become due until after June, 1874. In fact, my time being wholly occupied, I had neglected to post myself or ever give the matter a second thought.

"In my ramblings among the photographers in this and adjoining States, I have often been spoken to concerning the advance in dues, and have told each and all that it did not become due until we should meet at Chicago. I acknowledge my error and ignorance of the correct state of the affair, and this is my apology for the same.

"The Association is of immense benefit to each and every one connected with photography, either directly or indirectly, and I, for one, should feel very sorry to have it.

said that the N.P.A. stood for the National POVERTY Association; and wishing to be of more benefit to the fraternity than would be a pair of blacksmith's bellows, I inclose a draft for \$25, and wish my name to be enrolled with the life members."

Proceedings of the Executive Committee of the N. P. A.

A MEETING of the Executive Committee of the National Photographic Association was held at Nos 419 and 421 Broome Street, New York, Monday, March 16th, 1874. Present: Messrs. Adams (Chairman), Bogardus, Moore, Rhoads, and Wilson.

The report of the Committee of Investigation into the matter of the assets and liabilities of the Association was read by Mr. Moore.

The Association is indebted still to the amount of \$2872.35, and its assets are over \$3500, due by the members, so that if the dues were all paid the Association would be free from debt and have a balance in the Treasury. With the exception of about \$300, for counsel's fees and some small incidental expenses, the whole indebtedness is for matters ordered by the members when assembled in convention, many voting for the measures who have not yet paid their dues. It is extremely unpleasant to the committee to make such a revelation, but they know the panic has retarded everything financially, and they still have confidence enough in the members that now all arrears will soon be paid.

Mr. Rhoads reported that he had audited the accounts of the late Local Secretary, Mr. Baker, and that there was a balance of \$95.35 due Mr. Baker.

Messrs. Preston C. Nason, Columbus, Ohio; O. C. Bundy, Virginia City, Montana; A. W. Phipps, New Castle, Pa., and Robert Shriver, Cumberland, Md., were reported by the committee as having applied for life membership, and they were admitted.

The subject of increasing the fee for life membership was discussed at length, and all present took part in the debate. It was the unanimous opinion that after the Chicago Convention the fee should be doubled, and such a recommendation will be made to the Convention.

The thanks of the Committee were ordered to be sent to Messrs. Benjamin French & Co. and Seovill Manufacturing Co. for their "mammoth offer."

Communications pertaining to the Chicago Convention were received from Local Secretary Hesler, and he was instructed to proceed with all diligence to make his arrangements. It was the opinion of the Executive Committee that now times were better, that the members would manfully and promptly pay their dues, and that, with the liberal purchase of tickets for the "mammoth offer," would insure the finest convention and exhibition at Chicago that the Association ever had.

The Secretary was instructed to notify each member by postal card of the Convention and concerning life membership.

EDWARD L. WILSON, Secretary.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

IV.

ALL has not been told that I saw in Berlin. You may wonder that I have not more photographic notes collected there to give you, but you will remember that for ten years past Dr. Vogel has faithfully kept you informed on all that pertains to photography in his splendid city. This thought gave me considerable comfort when I was there, because I saw so many things beautiful and new to me outside of photography, that it was too strong a temptation to me to resist not to enjoy them. So I gave way, and I gloried amid the attractions of the museum, the aquarial and zoological gardens, and the picture galleries, and hid in the corners where I could hear the music and see the people. In these gardens thousands assemble, yet there is not the slightest attempt at insult or disorder; every one seemed to be enjoying himself, and no one interfered with another. This struck me as singular, and made me think of our photographic con-

I was sorry to leave Berlin, and to this day I regret that I had to leave it so soon, but

the day and the hour came, and one more dinner out in the open air-for a Berliner won't eat in the house if he can get a place outside to do it-one more shake-hands all around, and with Dr. Vogel on my arm, we started for the "station" to "book" ourselves for Vienna. You know, of course, that on all European railways three classes of cars are run, first, second, and third. The first is comfortable and clean, usually; the second is not so nicely upholstered or so clean; and the third is supplied with pine benches only, full of filth and vermin, and tobacco refuse. The German cars, however, are usually better than those in Great Britain, and when about to purchase "first-class" at Berlin, an English gentleman stepped up to me and said, "I beg your pardon, sir; don't buy a 'first-class;' none but fools and Englishmen do that in Germany." I thanked him, and assuring him of my inborn dread of being suspected of being either a fool or an Englishman, purchased "second-class," and Dr. Vogel and I had the apartment all to ourselves for a good part of the journey, until a California gentleman and lady broke our rest some time during the night.



A hat of this size.

The Doctor being voluntary courier to the expedition, studied the guide-book, while I found much outside to entertain me, to say nothing of the care required by the extra large felt hat which he compelled me to buy lest I should "suffer

from the Italian sun." It suggested an old dodge for saving wastes, and I thought a hat of this size ought to save a photographer from using any silver at all.

Well, as we rattled along, picturesque old churches added to the beauty of every town we passed. Windmills were whirling around in groups of dozens on every hillock; women were toiling in the fields, some carrying great loads of hay upon their heads. Here a horse and ox would be sleepily dragging along a plow together, one woman guiding the plow and another driving the team; there a group of youngsters gambolling in the dirt and dust, as happy as

crown princes-and why not? Each mile made a picture. No fences stood in the way, the railroad was below the grade of the public thoroughfare, and away we flew until we came to Saxony, where instead of the Indiana-like country through which we had just passed, the hills began to rise



One woman guiding the plough, another driving.

around us, and the river to wind, until it became almost as charming as our own Connecticut Valley. About dawn we were leaping along the banks of the beautiful Elbe, and beautiful it is, a very Susquehanna on a smaller scale. Hardly a mile in a straight line, but a continual winding around among the hills as if on a frolic we went, until the great forms of Schondau and Liliansberg and Königstein loomed up in the distance, as though tantalizing us because we had not time to go stand at their feet and make our humble obeisances.

It now grew too dark to see more than the lights of the lamps, and creeping under my hat I fell asleep; but I did not rest, mentally or physically, for we passed through Dresden without the least idea of what her highest steeple is like, to say nothing of her world-renowned picture gallery. But Vogel is a doctor, and he said if I would go to



Hackmen of both sexes assailed us.

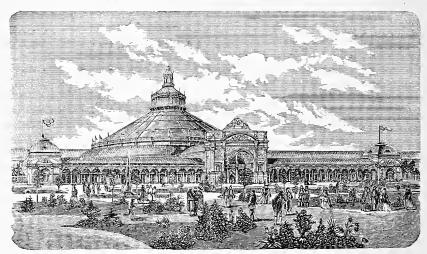
Rome and Naples I could not see Dresden, so Dresden I did not see, for I had not time.

We arrived in Vienna at 9½ A.M. A great posse of

hackmen of both sexes assailed us, and making a choice we were soon at our quarters, which were within hearing of the buzz and hum and din of the great Welt Austellung, or World's Exposition, and it was not long before we were in the midst of the throng pressing towards the entrance gate. Outside were hundreds of restaurants and biergardens, and side shows of all sorts of malformations and monstrosities and what not. Once in the gate, within the grounds proper of the Exposition, we found ourselves in a very Babel. I expected that, but I did not expect to see great houses there moved from Egypt, and Turkey, and Persia, and China, and Russia, and Hungary, and Switzerland, and the Carpathian Mountains, and Siberia, and where not, all rebuilt there, furnished in native style, and inhabited by genuine natives. But there they were, in all their simplicity or beauty, or cunning, or ugliness, just as it happened. Even the American negro and the Indian with his wigwam were there, enough variety indeed to make a miniature world, and I shall never forget my first impressions of it.

Crowning all in its splendor, and amidst

that I had a month's work before me, and only one-fourth that time to do it in. Moreover, and worse yet, the arrangements were so bad that to see all the photographs, what I especially wanted to do, would cost me several miles' walk and much time. Instead of being arranged in classes, the merchandise of all kinds was arranged in departments assigned to the countries from which it came. A drawing will make it plainer. The great dome stood in the centre, and diverging from it were great wings, and from these again other departments, as shown in the figure, only of course in much greater number. So it will be seen that we had to go over much ground, through passages in all directions, to visit the sections devoted to each country, and to see the exhibition of photographs which beautified almost every section.



The grand Exposition Building at Vienna.

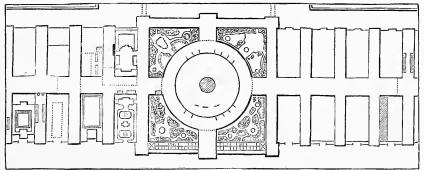
all and above all, stood the magnificent Exposition building, a faint idea only of which can be had from the drawing here given. Before entering we were joined by Dr. E. Horning, the editor of the *Photographisches Correspondenz*, of Vienna, and one of the Austrian Commissioners in charge of the Exhibition. Thanks to him we were admitted to places where the friendless could not follow, and I am indebted to him for many courtesies during my stay in Vienna, and for the use of his office.

As soon as I entered the great dome I felt

Dr. Vogel, who, as one of the jurors in the Department of Photography spent nearly a month here, has already given us so much information in his letters concerning the photographs at the Exposition, that there is not much left for me to do, and I sent forward a list of those to whom prizes were awarded. The display was certainly magnificent, and embraced examples of nearly everything photography had ever done, from the day of its birth up to the then present. The display from Austria was of course the best, and the Prussians were not

far behind. America was not very numerously represented, but what she had there was as good as anything shown, and far above the average. Satisfied and comforted on that point, I could enjoy a second look at the others the more. American photography is decidedly as far advanced as any in the world, and the jury confirmed this by giving to her one of the two first prizes, the other going to Prussia. Austria would have stood alongside had it not been for the fact that our good friend, Fritz Luckhardt,

Davanne, Taupenot, Blanquart Everard, Fizeau, Humbert de Molard, Négre, and Bayard. What would these savans, the most of whom are in their graves, say, if they could rise and compare those results of hard labor of theirs with the most improved examples of modern photography? They would admit, as we all do, that the little plant which they nursed, and dug about and dunged, had indeed grown to the dignity of a most flourishing, widespreading, and fruitful tree.



was one of the jurors and therefore could not compete. I think his prints were the most exquisite examples of printing and toning I ever saw there or anywhere. There was an indescribable loveliness and delicacy and softness, almost liquidity, about them, which I could hardly understand. Then they were so elegantly displayed, on an elaborate vertical stand of ebony and At each corner was a bronze bronze. statue, representing severally, optics, chemistry, art, and printing, while here and there were bas reliefs representing different photographic operations, all elegant and elaborate, yet tasteful. Perhaps the largest and finest display by any one person was that of Mr. W. Kurtz, of New York. Mr. W. R. Howell also made a fine display of work. All these have been described in full.

One of the most interesting collections was that of the French Photographic Society, which included a series of historical relies by the various photographic processes of some of the early experimentalists in the various reaches of photography, among whom were Poitevin, Daguerre Le Gray, Fargier, Camarsac, Bertsch, Niepce de St. Victor, Barresvill, Le Mercier Lerebours,

Dr. Horning published a very convenient guide to the photographic section of the exposition, but even that did not overcome the inconveniences caused by the horrible arrangement alluded to. Why the photographs were not all placed in close contact with each other, and made of themselves one grand exhibition, as were the paintings, I cannot imagine. I hope the managers of our own Centennial Exposition will do our art the justice to give it better consideration.

The jurors have already decided whose work was entitled to the most consideration at Vienna, and you have had their names. Dr. Vogel has also, as I have said, told you of the most striking things there, so there is but little left for me to do. It would do no good to tread upon the toes of a few whose toes I would like to tread upon for the sake of our art, whose pictures exhibited were simply abominations; for if the parties can so delude themselves as to rise to the point of exhibiting at a world's fair such fearful examples of in every way bad photography as they did, under the delusion that they were " works of art," or such monstrosities as they did with poetical nom de plumes merely because they were "big things," and showed the "wonderful" (?) incapacity of the lenses of a pet friend, I am sure that nothing I could say could ever bring Mr. or Mrs. down from that point, and the only hope photography has for release from such demoralizing productions is in the death of the parties who make them.

Mr. Abel Lewis and Mr. Marshall Wane, of Douglass, Isle of Man, exhibited each some superb specimens of portraiture.

The large pictures of living animals, by Mr. Frank Haes, London, were certainly never excelled.

Messrs. Robinson & Cherrill always show fine pictures, and they even excelled themselves here. Their work is familiar to all who visit our annual National Photographic Association exhibitions.

The stereographs, by M. Lamy, of Paris, were beyond comparison. M. Lamy was present during each day for several months, making stereographs of the Exposition, and each negative he made was a photographic treat to examine. He is unexcelled.

Some exquisite cabinet pictures, by Antoine Lumier, attracted my admiration considerably. He and M. Walery, of Paris, are certainly masters in their profession. The Child at the Cross, by the latter, I remember as one of the finest genre pictures I saw.

M. Merget's prints, on the salts of platinum, iridium, &e., without the action of light, but by fumigation and pressure, were exceedingly interesting.

The glass transparencies by Messrs. J. Levy & Co., Paris, excelled anything in that line, and were the most perfect things in photography, for nothing equals a good glass positive. More of these when we visit their establishment together.

The burnt-in enamels by Deroche approached those by Robinson & Cherrill in quality, but, alas! his process is secret, and not for sale.

The copies of paintings by Bingham, Paris, were fine, and the portraits by Mr. Ch. Reutlinger were all that Mons. Lacan claimed for them in his letter to us in January.

The Egyptian landscapes and architec-

tural views, by Mr. D Schoefft, of Vienna, were the best, I think, I ever saw of that warm country, and were fairly enchanting.

The same may be said of the work of Mr. P. Sebah, of Constantinople, who truly understands the handling of the camera out of doors and under the sun.

Mr. F. Moraites, Athens, Greece, also displayed some fine things.

Mr. Antonio Sorgato, Venice, Italy, exhibited some of the most natural genre pictures it was my pleasure to see. Great care was exercised in their arrangement and finish, and the story in no case was exaggerated or spoiled

Now we come to the solitary dozen of exquisite gems by Loescher & Petsch, Berlin. They hung in a good light, against a column, a little aside from the general passageway, but when one once found them he was sure to return again and again to drink in their beauties; and if he be a photographer, he is fortunate if he goes not away from them crazed over their excellence. As I stood there I thought, how I would like to mount those twelve pictures on a great banner, and, shouldering it, go home and march over the whole land with them, that every American photographer could see them. But the most I could do was to purchase a few sets and have them sent over, that those who wished could purchase and study them. It was a rare treat to study them there.

Mr. F. Hanfstaengel, of Munich, exhibited some fine things, representing national characters, &c., and Messrs. Otto Van Bosch & Co., Frankfort, had some excellent work there.

The finest interior work I saw was by Mr. F. Reinecke, Hanover, Germany.

Mr. J. Löwy, in Vienna, proved himself to be one of the best of portraitists.

Messrs. Trapp & Munch exhibited a large number of splendid pictures on their excellent paper, so well known here, and among them three views on sheets of albumen paper thirty-three by sixty inches in size!

Some of the most tenderly beautiful work there was among the groups of young girls, from Mr. J. B. Rottmayer, in Trieste, Austria. I hope to secure some of them for a future illustration of this journal. Some panoramic views, by Messrs. Baldi & Würthle, Salzburg, were also equal to the best outdoor work shown.

Mr. Julius Geitinger and Miss Adele, of Vienna, also stand very high in the art, as was proven by their superb work.

From Russia the best work shown was from Mr. Ch. Bergamasco. That cold climate does not seem to interfere with his securing the best results.

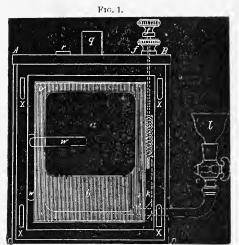
Of apparatus there was a display from many sections. More about that next month. I was glad to see, though, that none equalled our own American Optical Company's goods. Like our photographers, they are ahead.

One of the real curiosities of the Exposition at large, was the automatic apparatus for photographing without a dark-room, the invention of Dr. S. T. Stein, of Frankfort on the Main, and called by him "The Heliopticor."

There are a number of devices such as that of Dubroni, Leech, our own Wright and Ratzell, &c., similar to Herr Stein's, but none so elaborate in construction or so ambitious in design. The inventor avers, and truly too, that photography is a great helper to the sciences, and he intends that his invention shall help them still more. He will certainly make good his promise if his beautiful apparatus may indeed be practically applied in all the directions he describes. I was much pleased with what I saw, but as the inventor is best acquainted with his invention. I will quote his own description, for which I have to thank Dr. Horning's Correspondenz. After describing the several inventions similar to his own, their capabilities and their shortcomings, Dr. Stein says:

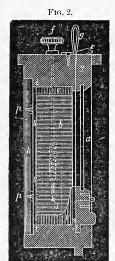
"The aim I had in view in the construction of my apparatus was not only to give the landscape photographer a sure method without the use of a cumbersome dark-tent, but to give more particularly the naturalist, the scientist, the military, as well as amateurs, without much practice and study, a means of making photographic studies.

"My apparatus consists of a camera, with a plate-holder of 1' to 2' depth (A B C D, Fig 1), whose slide is partly glazed with colored glass (brown-yellow or red) (a Fig. 2). The depth of the holder depends on the size of the camera and objective. The larger



the plate the deeper the holder, although for the largest generally used (whole plate) the depth should not exceed 12 to 2'. This holder can be constructed for any ordinary eamera and objective. In the holder is set a movable glass frame (v v v v), Figs. 3 and 5, which can be made of varnished wood, vulcanized rubber, or paper, one-quarter of the back part of which is covered by a vertical wall (b), Figs. 1 and 4. The side of the frame towards the lid of the holder is polished flat, to be covered by a ground-glass (SS), Figs. 2 and 4. A piece of soft vulcanized india-rubber is placed between the glass and frame; the ground-glass is placed on the frame, to which it is held by a spring on the side. The picture intended is focussed, and as will be seen by the following description, the negative takes the place of the ground-glass. By the use of a glass frame, whose edges and sides are ground flat, the india-rubber is superfluous, as the laws of adhesion keep the glass in place. The collodionized plate is pressed by the strong springs of the holder (pp), Fig 3, through the aid of four small bolts (x x x x), Fig. 1, on the soft rubber, or polished edges of the glass frame, making a hermetical inclosure; the receptacle for the silver-bath is now complete (the collodionized plate forming the bottom), resembling a partly covered flat

To supply the silver solution, a round hole is provided on the side (e), Fig. 1, which corresponds to another in the movable frame



(d), Figs. 1, 2, and 4. This hole is closed by a slide (k), Figs. 1 and 2. This slide is continually pressed down by the spring (i), and is drawn up A rightat (f). angled tube, with coek (c), fits into the opening (d e); the glass funnel (l) on this tube must correspond in size to the chamber (b); the larger the chamber the larger the funnel. For the smallest plates (25 cubie centimetres) use 10

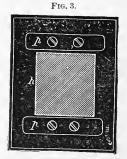
grammes; for whole plates 100 grammes solution, to correspond with the size of the chamber (b) Figs. 1-4.

"When the tube (e c l), Fig. 1, is in the opening (d), the elastic slide (k) is held up by the resistance of the tube (e d); the moment the tube (e d) is withdrawn the slide slips down before the tube leaves the side of the apparatus, and the opening is closed to the light. At (b) is a loop to draw up the glazed slide (g); at (r) a bolt to keep it closed; at (w) a spring to hold the ground-glass; the latter can be used in the ordinary frame. I would here particularly state that the movable frame $(v \ v \ v)$, Figs. 1, 4, and 5, at (b)contains no trough, as many would believe, as can be seen in the cut, Figs. 2 and 5; only a partition (b), the front, which is at every exposure the negative plate, forming then the trough $(s \, s)$; in Fig. 5 is the negative (t t), the india-rubber (v v), the upper and lower part of the movable frame; to the right of the lower (v) is the partition (b), to the height of which the solutions must be put in."

Now let us go through an imaginary exposure with the heliopticor. The operations would be as follows:

-1. The ground-glass is placed on the movable frame $(v \ v \ v)$, and held by the spring

- (w) placed in the heliopticor, and focussed in the usual manner.
- 2 The plate-holder is taken from the camera, the spring is drawn back from the ground-glass, and the latter put aside.
- 3. A polished glass plate of the required size is dipped in water, and coated with the following solution of albumen: distilled water, 800 grammes; iodide of potassium, 0 50 gramme; fresh beaten white of egg, 25 grammes; glacial acetic acid, 10 drops, and dried. It is advisable to have these



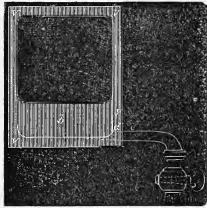
plates already prepared, or in stock. A plate prepared as above is coated with iodized collodion, and when properly set, laid on the frame, Fig. 1, collodion side down, by means of the lid (h) springs $(p \ p)$, Fig. 3, and the bolts $(x \ x \ x \ x)$,

Fig. 1, is pressed tight against the gum or polished glass; the holder is then placed in a horizontal position.

- 4. The tube (l c) is placed with closed eock into the hole (e d) after the slide (k)is drawn up at (f). In the funnel (l) is poured (with a suitable vessel) as much solution (1 arg. nit., 10 aqua dist., 1 drop acid. nit.) as the chamber at (b) permits, which can be seen and controlled by means of the large yellow or red* glass window at (a). (This slide can be drawn up during the operation.) After the funnel is filled the cock is opened, and the solution flows into the chamber (b), the glazed slide is lowered, the cock (1) closed. The holder is tilted over softly, so that the colored glass will be on the top, which will cause the solution to flow over the collodionized plate.
- * Red or light-crimson glass is preferable to the yellow for this purpose, as the latter cutting off all actinic rays, is almost too dark to watch the progress of the operation through it. It is well to try strips of silvered paper under the different colored glass for several hours, which will conclusively show that such exposed under the crimson, has not changed as much as that under the yellow glass.

holder is gently recked to and fro for several minutes, to facilitate the coating of the plate, which can also be watched through the stained glass. As soon as this is accomplished, the holder is again placed in a horizontal position, the tube $(l\ c\ e)$ is turned down, the cock opened, and the solution allowed to run out at (m), Fig. 4, through a filter into the stock-bottle. The tube is then withdrawn, the slide (k), through the pressure of the spring (i), shutting out all light from the hole (d). The tube should never be withdrawn as long as any solution remains in the chamber, as the slide (k) is only intended to keep out the light.





- 5. The holder is placed in the camera, the bolt (r) is opened, the glazed slide (g) drawn up at (q), the cap taken off the tube, and exposed according to circumstances. Figs. 1 and 2.
- 6. After sufficient exposure the cap is replaced, the glazed slide (g) is shut, the bolt (r) closed, the holder taken out of the camera, and a second tube, with funnel placed in the hole (e), by raising the spring (i) at (f). The cock is opened, and the developing solution (pyro or iron) is poured in in the same manner as the silver solution; it is then tilted over so that it covers the plate at once, and watched until sufficiently developed: more light can be let in by drawing the slide off the small red glass (h), Fig. 3. When sufficiently developed, the holder is again placed horizontally, and the solution allowed to run out; the tube is then turned up, and water to rinse the plate

poured in, which can be repeated until suf-

Fig. 5. ficiently washed. The plate can be redeveloped if necessary.



7. The holder is reversed, the bolts (x x x x) are drawn, the plate is finally rinsed before fixing, drying, and varnishing.

8. As soon as the plate is removed from the frame, the latter, Fig. 5, is placed in clean water and cleaned, which is very simple, as the corners are all rounded,

after which it is dried in the holder for further exposures. Each apparatus is supplied with two frames.

The fact that every object which the eye can see will, with a suitable light, as soon as the rays in their mixture contain the ultra-violet, violet, blue, and green light, i. e., include chemical rays, will make an impression on the sensitive plate, and thereby leave a permanent picture, has induced me to combine the above apparatus with different optical helpmeets, to facilitate the practice of photography to the physician and naturalist. For this purpose I combine the heliopticor with the microscope, for micro-photographs; with the ear-reflector, for photographs of the tympanum, or interior of the ear; the laryngoscope, to photograph the interior of the throat; and with one for this purpose constructed by me, the urethrometer, for photographing the interior of the urethra and urinary organs, with the womb-reflector, to photograph the female sexual organs, uterus, and rectum. All these applications can be of the greatest value to the practical surgeon, as diseases internal as well as external can, by successive photographic exposure, be sporadically collected, which photographs will give him such an objective representation as cannot be equalled by the pencil of the best artist.

Dr. Stein now describes how to utilize his apparatus in all the departments named, and then says:

"I have made an attempt in the above, to give a view of the wide field that is yet open to applied photography. The simpler the methods, the handier the apparatus to

those not acquainted with photography are made, the more this beautiful art will be used for the advancement of science and knowledge. Astronomy, meteorology, anatomy, physiology, technical and military science have lately brought photography to their aid. It is for the above departments I hope to have done a great service with my apparatus. To the travelling naturalist as well as the tourist, it substitutes an artist and means of sketching which no other method can easily supply. The different photographs exhibited in a group around my models at the Vienna Exposition, will give an idea what can be accomplished by those not acquainted with the art, in an easy and simple manner. My apparatus gives all a means to fix the instantaneous phenomena of nature with the aid of light without previous study, as something to preserve, and to gather out of the sea of floating impression the certain conviction of the prevailing laws."

THE MAMMOTH OFFER.

It looks as if Messrs. Benjamin French and Scovill Manufacturing Company have, by their generosity, hit upon a plan that will relieve the National Photographic Association from its embarrassment, provided the members also, continue to pay up their We know that the panic has made us all squirm and scratch to get along for the past six months, but we believe now, that with the return of the season of sunshine, that financial sunshine is also coming, and that a good business is at hand. Several photographers, hereabouts, have told us that on every clear day they are literally run down with business, and we hope such good news will come to us from all parts of the country. And judging from the demands made for the tickets in this matter of the mammoth lens and box, offered in our last number, many photographers expect to go into the large picture business. Mr. French called upon us a few days ago, and gave us a description of the lens. It is suited for every size, from 17 x 20 down to 8 x 10 inches, or even whole plate size, and is the handsomest lens made by Mr. Voigtlander. The box, Scovill Manufacturing Company informs us, is to be of a size to suit the lens, gotten up with dcuble swing back and all the other modern advantages of a first-class portrait-box. The box and lens will be worth \$550, and the cost to whoever gets it will be \$3 only. The tickets are now going out rapidly. There are six hundred of them only, and if you choose, you may mention the number of the ones you desire sent to you. They may be had of the following parties: Scovill Manufacturing Company, New York; B. French & Co., Boston; and Edward L. Wilson, Philadelphia.

HOW TO SAVE TIME.

Women, I believe, are proverbially noted for being unable to keep a secret, and inclined to tell everything they know or hear; but I shall only tell what I know, and that is, we are a great deal better off than most of the fraternity. But don't tell any one that we no longer have to use nearly two days to print and finish up two or three hundred photographs, but have the work better done now, between the rising and setting of the sun, and the pictures ready to deliver.

Now, don't scowl, and shake your head, it is so; just call around about two o'clock this afternoon, and you will find the pictures are nearly finished.

You have heard of grinding-out photographs; well, that's the way we do it. We take our pictures from the fixing bath, immerse them in one water, then place them in this nice little thread-cylinder, side by side, and subject our pictures to numerous little sprays of constantly-changing fresh water, which strikes them on each side simultaneously, as the cylinder is revolving. In ten minutes' time they have been thoroughly washed, and only about two pails of water used; we are all ready now to place them together and mount.

The albumen is not half soaked off, neither are any torn, nor the edges roughened by handling; and, of course, they are far more brilliant and pleasing. Well, you like the arrangement, of course you do; and after you have used one a month you will wonder, as we do, how we could have done without it.

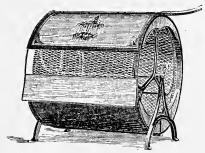
There has not been a day since we purchased our machine, that I have not felt as if every photographer ought to know what a blessing and labor-saving arrangement is ready for their use; and when we read an extract from the British Journal, advocating "that prints washed rapidly, kept better, and looked more brilliant from the first, than prints washed by the prolonged soaking;" also suggesting, "constant handling the pictures, over and over in different waters, for the space of an hour or hour and a half, when they would be sufficiently well washed," I could resist no longer, but felt as if I ought, and it really was my duty to let every one I could, know how to save so much time, patience, vexation, and care.

I think there are many worthless things that are advertised, but when anything that is good and a real benefit to us comes to our knowledge, we, as a fraternal association, should be willing to let each other know its deserving merits. Therefore, I sincerely advise you all not to wait till the next Convention to find out what the Washer is, but try one right away, and you will have four months longer time in your life, to carry a thankful heart towards the inventor for all he has saved you from.

MRS. E. N. LOCKWOOD.

Moulton's Rapid Print-Washer.

To those whose supply of water is limited, or who are obliged to carry it up two or three flights of stairs, any method that secures speedy and thorough washing with an economical use of water, is a great boon. This seems to be supplied in Moulton's



Rapid Print-Washer, a cut of which is presented herewith. One especial advantage of

this is, that it may be taken to the faucet wherever it may be, in the basement or upper story, and over an ordinary sink; the prints are washed in a few minutes in the most thorough manner. Mr. Moulton has submitted a test to Mr. Gustavus Bode, analytical chemist in Milwaukee, who says that the prints treated in the Rapid Washer for ten minutes, were freer from traces of hypo than some that had been washed in a siphon tank, in running water, for an hour, and then left to soak over night. We can only advise photographers to investigate it, prove its merits, and be governed by their own judgment as to its utility. Our desire is to place in the hands of every photographer every means that will help him to produce the best work, in the surest and most expeditious manner. This Washer seems to us to supply a want that has long been felt.

OUR PICTURE.

It is seldom that we have called attention to the pictorial page of our magazine with so much pleasure as we do this month. This is from the fact that we feel that there will be but one opinion among our readers in reference to this beautiful specimen. We often present pictures that we are satisfied many do not appreciate. We offer them for the purpose of inciting thought, inspection, and study; and those who do not look at them in that way may fail to find anything beautiful or instructive, but in this picture we know the senses will be captivated at once, and all will be led to study its beauties and derive profit by dwelling upon its many points of excellence. As will be seen, it is from the studio of Mr. Walter C. North, of Utica, N. Y. North is one of our enterprising and progressive artists. He is an old contributor to this department of our journal, and it only needs a comparison between this picture and those published several years ago by him to see the wonderful strides he has made Not that he was behind others at that time, for he was not, and we are happy to be able to present this evidence that he stands in the front rank to-day.

"The subject is Miss Carrie Everts, who is attending the ladies' seminary at Hamil-

ton, N. Y., and who was a willing as well as a charming subject for 'Our Pieture.'"

We wish that more of our beautiful American ladies, of which no country can boast so many, would overcome the shrinking delicacy that prevents us from oftener giving our readers a study like this. In painting, sculpture, architecture, or any department of art, we strive for that which is most beautiful. Our disposition is to study the highest types of beauty we can find, whether amid the solitudes of nature, where the lofty mountain or the deep ravine, the placid lake or the roaring cataract lend grandeur to the scene; or in the equally varied and interesting studies presented in social life, where nature has endowed our common humanity with so much that is interesting and attractive. And it is by these that our appreciation is cultivated, elevated, and refined; and he or she who may be instrumental in bringing before us the most perfect illustrations of nature's beauties or handiwork, confers a favor that carries an influence for good wherever it may go.

Mr. North says of his method of working: "I took very great pains to make the negatives extra nice, so that we could be mutually benefited.

"I placed the sitter well out under the light and used Kent's hand-screen with good effect. But I think a great deal of the perfection in the negative lies in the beautiful effects of light and shadow that I can get with my soft light. I believe I can get a greater variety of effects with this light than with any other I ever saw. Having plenty of room to place the sitter under either edge of the light, I am not obliged to place them always in one spot. I like Kent's hand-screen the more I use it, and often wonder why it is not more generally used by photographers."

The following is Mr. North's

FORMULA.

Plain Collodion, made of equal parts alcohol and ether, 5 grains of cotton to the ounce; iodide of ammonium, 5 grains to the ounce; bromide of cadmium, 2½ grains to the ounce. I grind my iodide and bromide separately, in a small mortar, with a few ounces of the plain collodion till all is dissolved, then add to the bulk of the plain collodion, and let it settle till ready for use.

Negative Bath.—Forty to forty-five grains strong, very slightly acid. When it shows effects of too much alcohol and ether, I boil it down about one-third, after adding the necessary quantity of water and silver that it needs.

Developer.—Iron, 1 ounce; double sulphate of iron and ammonia, 1 ounce; acetic acid, 2 ounces; water, 32 ounces. Fix in hypo.

I placed the sitter pretty well under the light, and used "Kent's Hand-screen," carefully and as judiciously as possible. My skylight and side-light has a southern exposure, is very soft and beautiful, getting a great variety of effects, just as we want them; plenty of room to work in and easily managed.

We think it of the utmost importance, in order to make the best of negatives, to study well the lighting of the subject. It is folly to think that all sitters can be placed in the same light and secure good effects, or even good likenesses. All faces should be studied well, and judgment exercised as to how and where to place them to get the best results.

When the fraternity generally adopts that plan, we will see still better work than we do now.

SERIOUS FIRE.

The Storerooms and Editorial rooms of the Philadelphia Photographer completely deluged with water.

WE have to record a misfortune which has just fallen upon the *Philadelphia Photographer*, which came very near sending the present number where none of our readers would ever see it in its present shape.

On Tuesday, March 17th, about 5 A.M. the engine belt-box leading from the first floor of Sherman's building, where our rooms are located, to the bindery of Marley & Co. overhead, took fire, and in a few moments the whole six stories of the immense structure were in flames. The firemen were soon on the spot, and by deluging the building saved it, but ruined the great bulk of its contents. We being in the lower floor caught it without limit, and the great

bulk of our stock of books, back numbers, lantern-slides, photographs, &c., and including our new sanctum just fitted up, are badly damaged.

Still, with all this drawback, we are enabled to issue at our usual time, and things are going on pretty much the same as ever. We still live—we hope to continue to do so. We can fill orders for all the books on our catalogue yet, for awhile at least. Please continue to deluge us with your orders, and we will let you know when to hold up.

But the World! Well, this second deluge

has almost relieved us of that. For awhile we can make good the offer on our first page, and then that will be ended. For bargains for one month only please refer to our advertising pages.

There will be no delay in the transaction of our business, but for a long time we shall feel this sudden and great loss. At this writing we cannot tell what is gone exactly, but if we fail in noticing any little requests that have been made of us in our present number, please attribute it to too much water.

Editor's Table.

Pictures Received.—We have been remembered by quite a number of earnest workers since our last, and we wish we could take each one by the hand and give him words of encouragement, but as this cannot be, we can only say we are grateful for these evidences from time to time, of the efforts and successes of those for whom we labor.

Alva Pearsall, of Brooklyn, heads the list with several beautiful cabinets and cards. They show care and skill in every part of the work, and sustain the high reputation this artist has already acquired. Some cabinets of Fred. Douglass, from J. H. Kent, Rochester, in his usual excellent style. A number of cards and cabinets from Hoard & Tenney, Winona, Minn., who are working in the right direction, with some very good effects, but from whom we shall expect to see improvement. Cabinets and cards also from Forrester Clark, of Pittsfield, Mass., which possess many good qualities, and show the artist to be an enterprising worker. Cards have been received from H. B. Hillyer, Austin, Texas, and O. C. Bundy, Montana, who deserve encouragement for their efforts in localities so remote. Some very pretty stereos of Wodenethe, residence of Henry Winthrop Sargent, Fishkill-on-Hudson, by ----. We also have some good cabinet pictures from Ashland, Ohio, without name, and samples of their work from Messrs. Lon M. Neely, Muncie, Ind , Wager & Churchill, Erie, Pa., and from Mr. J. B. Medlar, Racine, Wis., all showing good progress.

BIRD'S HEAD-SCREEN.—We had the privilege of examining this screen a few days ago in our office. It is very neatly gotten up, and well adapted to the purpose for which it is intended. The Scovill Manufacturing Company are the agents, and photographers can get them, no doubt, from their favorite stockdealers in any part of the country. The *Photographic Times* will, no doubt, describe the screen fully.

BEWARE.—We have received from a correspondent a postal card, of the contents of which the following is the opening paragraph, and contains the substance of the whole:

"BROTHER ARTIST.—DEAR SIR: If you have any old negative baths that will not work satisfactorily, and wish them changed into printing baths, send them to me. I will do it for one-half of the solution, or for \$1 for every two ounces of silver it contains."

We say beware because the toll taken is altogether too large. A refiner will reduce your solution and give you pure nitrate of silver in return for twenty-five per cent., while this man wants one-half for merely changing a negative bath to a printing bath, which any man can do for himself in a few minutes.

A MEDAL OFFERED TO FOREIGN PHOTOGRAPHERS.— We have a great many subscribers in foreign lands, and some of them have taken us to task for not giving them a chance also to secure the prize medal. Surely we will be glad to do this, but as the time is so short now, we make a special offer to our foreign subscribers, of a gold medal for the best three portrait negatives sent us by July 15th, 1874. The rules and conditions the same as those made for the other competition. We hope with these two offers to secure some very handsome things for the coming embellishments of our magazine.

NUMBERS OF THE "WORLD" WANTED.—We have been so "extremely generous" (as our readers put it) in giving away the numbers of the World, that we unwittingly exhausted our supply of certain numbers. We want all we can get of the numbers for June, August, and December, 1872. Will those who have them also be "extremely generous," and exchange with us for other numbers, that we may help the fow who want them to make up full volumes, otherwise we will give fifty cents per copy for them.

MR. T. H. McCollin has succeeded Messrs. Haworth & McCollin, in the stock business, at No. 624 Arch St., the old firm stand, where he keeps everything needed by the photographer. One of his specialties is Morgan's albumen paper, which is very superior.

THE SOLAR NEGATIVE PRIZE.—Mr. Moore desires us to call attention again to his offer of a gold medal for the best solar negative sent him by April 20th, the time having been extended on account of bad weather. Particulars on page 565 of our December, 1873, issue.

ITEMS OF NEWS .- Business is first rate .-Mr. William T. Cowey, late of Brookville, Ind., died of consumption, February 18th, last. He was a native of England, and came to this country about ten years ago .- In noticing the improved albumen colors sold by Mr. George Rau, of this city, we said they were made by Mr. E. Krüger. Instead, they are made in Berlin, Prussia, by Mr. Julius Krüger.-Messrs. Leftwich & Stafford have just completed a new and beautiful establishment at Carrolton, Mo. We are glad they can afford this monument to their enterprise and good work .- Mr. A. C. McIntyre, Brockville, Ontario, has also just entered his new "Thousand Island Studio," which he has had under way for some time. It is said to be as beautiful, comparatively, as the beautiful section of country in which it is located .- Mr. Huntington, St. Paul, Minn., recently presented to the State Legislature an original group picture of the members of that body to the State, and it will be hung in the hall of the Historical Society. The House accepted the picture, and the clerk was directed to extend the thanks of that body to Mr. Huntington.

HOW THE World MOVES OTHERS.—We have the following from one of our generous friends, who, like many others, seems to think he can never do enough for the Philadelphia Photographer.

WINSTED, CONN., March 10th, 1874.

I've got three subscribers. Am trying to get

one or two more; will send on in a day or two. The extra copies of the World is what did the business. A good thought of yours.

Yours truly, T. M. V. Doughty.

We have a few more copies of the World to give away as premiums. Try your hand at the last chance.

OPERATORS, ETC., WANTED -We have constant applications from our correspondents for operators, retouchers, printers, &c. Of course, all we can do in such cases is to put parties in correspondence with each other, but we cannot always do that. If photographers would advertise in Specialties, we believe they would always get what and all they want. But as there is often an objection to publishing their own names, we would say that we shall arrange hereafter to have all such advertisements numbered, and the answers may come to our care, and we will forward them to all parties who agree to pay the postage. We begin this in our Specialties this month, as will be seen by reference, and call particular attention to it.

SCOVILL MANUFACTURING COMPANY'S NEW STORE .- We made our first visit to this establishment a few days ago, and we think we are correct in pronouncing it the largest and finest stock-depot in the world. A fine double sixstoried iron front is the first we see of it; and then entering upon the first floor we come upon the offices, the glass cases for the exhibition of apparatus, and the several floors devoted to the sale and storing of merchandise; the vaults for collodions, cotton, &c.; the fire-proofs for lenses and what not, to make up a most complete establishment. We shall soon give our readers a more detailed description of it. We found them full of orders, and with business under full headwav.

SAVING SILVER AND GOLD.—We would call the attention of our readers to the announcement, made in the report on another page, of the proceedings of the German Photographers' Society, that Messrs. Kurtz and Kleinhaus have filed a caveat for a patent for saving metals from photographers' wastes, by a method which is entirely at variance with Mr. Shaw's method. We hope that the patent will be completed, and that we shall be given more definite particulars soon.

Fire.—We regret to learn that on January 9th Mr. E. H. Train, Helena, Montana, lost his whole establishment by fire. Loss about \$2000. He is now well fixed in his new quarters.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stockdealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23rd to secure insertion. Advertisers will please not ask us for recommendations. We we cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

PERSONAL.

TO MY FRIENDS.

Feeling that a continued connection with the so-called "O. C. S. H.," under the present management, would have a tendency only to wast the confidence of my friends farther and farther from a redeeming point, I therefore concluded it prudent to withdraw my connection with the same, and in doing so, it behooves me to return my most sincere thanks to my business relations and to my personal friends in particular, for their extreme liberality in bestowing their many favors upon the house I represented.

I very much regret this change, for it deprives me of those extremely pleasant, semi-occasional visits to your studios. But, should all go well, I may yet see you occasionally, in my own "personal curve."

I shall leave it entirely with you to decide, whether my efforts in your behalf and in representing the O. C. S. H. have proven a success or otherwise.

For the present, I shall remain in the beautiful city of Columbus, and at any and all times shall be only too happy to receive my old and new acquaintances, and, as in the past, shall endeavor to make your visits one of pleasure and profit.

Yours sure,

PRESTON C. NASON.

COLUMBUS, O., January 1, 1874.

Copies of the "Photographic World" for June, August, and December, 1872, wanted. 50 cents per copy paid for them at the office of the "Philadelphia Photographer."

Gallery in Rome, Georgia, for Sale.—Healthy country; a growing iron centre; no competition; population 6000 and over, and a good neighboring country. Rent, \$200 a year; board, \$16 to \$20 a month. Now doing \$3000 a year business. Good reasons for selling. A live, good photographer can do handsomely.

Address

WM. A. RECKLING,

Rome, Floyd Co., Georgia.

Criswold's Stereoscopic
Compositions. Read advt.

FOR SALE OR LEASE.—The only gallery in a city of 3500 inhabitants; business centre of a county of 47,000 inhabitants. Site of Wayland University. Very healthy climate. Good light, good rooms. Rent very low. Well stocked, and doing a good business. Only reason for selling, want to give entire attention to the Rapid Photo-Washer. Address L. V. MOULTON,

Beaver Dam, Wisconsin.

Something that you want. See advt. of the Rapid Photo. Washer.

\$200

Will purchase our "Photo. Car," which is 10x28 feet, 8 feet high on inside; good top and side lights; substantial trucks; sound in all parts.

Will self to a "new beginner" and give him six months instructions. "Ohio photographers" will please remember this to those who are inquiring for a "Photo. Car." Address

Roloson & Glover, Shiloh, Ohio.

Attention, Artists. For Rent.

The finest, pleasantest, and largest suit of photographic rooms in the Mahoning Valley; best location in the city, in the centre of business; established over five years. Population of town, 15,000. Splendid farming country. Size of rooms, 43×90 feet; with splendid north and side skylight. Possession can be had 16th of May. For further particulars, address

EVAN J. EVANS, Youngstown, Ohio.

Criswold's Stereoscopic Compositions. Read advt.

For SALE.—One of the leading photograph galleries in the Middle States. A cash purchaser can get a great bargain. For particulars, address C. W.,

Care Scovill Manufacturing Co.

Wanted.—A good photographer, with \$1500 capital, to take a one-half interest in one of our best galleries (worth four times the amount). A rare business opportunity for a No. 1 operator. Address, immediately, "Energetic,"

Care Scovill Manufacturing Co.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1874, \$4.50.

Wanted Immediately.—A good photographer as partner in a first-class gallery, inland city of fifty thousand inhabitants. I want a partner, as other business demands part of my time. Satisfactory explanations. Parties meaning business will please address H. Glass,

Utica, Oneida Co., N. Y.

Wanted.—Five artists, to finish photographs in India ink, water colors, crayon, and oil. We want none but good workmen. Please send sample of work and state the time required to do the same, and salary expected. No bummer need apply. Address J. H. Nason,

326 State Street, Chicago, Ills.

Don't soak your prints several hours and damage their brilliancy, but get the Rapid Photo. Washer.

Wanted.—An A No. 1 operator and artistic poser. To one that will suit, prompt pay and steady employment is offered. Address, stating terms, sample of work, and photo. of self,

HALLWIG & Co.,

N. E. cor. Olive and 7th Sts., St. Louis.

PHOTO. CAR FOR SALE.—First-class, and well accounted. For terms and description, address E. W. BLAKE, Phillipsburg, N. J.

BOSTON GALLERY FOR SALE .- The constant increase of Mrs. Foss' business makes an especial agent necessary, and I shall be compelled to sell my place to attend to it. My studio is 14 x 38 feet, with a pure north, side, and top light. I have the best mammoth tube box and stand in Boston. A new, 24-inch press, cast steel (nickeled) rollers. Will match my card and cob tube with anybody. Solar camera, and everything for a first-class business. Dark-room, 10 x 14 feet, 11 feet high, ventilated. Studio, artist's, reception, and work-rooms all on one floor, up two flights only. Cheap rent, splendid location, being opposite the world-renowned Boston Commons. Lease, good trade, best prices. Possession given at once, reserving the privilege to finish college and other work engaged.

E. J. Foss, 171½ Tremont St., Boston.

Criswold's Stereoscopic Compositions. Read advt.

PHOTOGRAPH GALLERY FOR SALE at a bargain. Only one in town. Best light in southern Michigan. Good lenses (Ross and H. B. & H.) Plenty of water, large dark-room; in fact the gallery needs but to be seen to be appreciated. Will sell contents of gallery and give lease, or, if preferred, will dispose of the building. Address J.H.

Box 94, Jonesville, Hillsdale Co., Mich.

For Sale.—At a great sacrifice, my patents on photographers' tent and trunk, at \$1200; also, my entire stock, apparatus, and fixtures of gallery at McMinnville, Tenn. Gallery for cent at \$15 per month; no opposition. Being forced from my home and business and imprisoned, is my reason for this offer. Address

Dr. J. FLETCH. WOODWARD, 27 N. Front St., Nashville, Tenn.

Criswold's Stereoscopic Compositions. Read advt.

For Sale.—A photographic gallery in one of the most desirable business localities in the city of Philadelphia. For further particulars, address "Art,"

Office Philadelphia Photographer.

For Sale.—One of the most prosperous galleries in New York State. Doing the best business and the best work in the city where located. Very best reason given for selling. A bargain as to price will be given. Address

"NEW YORK,"
Office Philadelphia Photographer.

JACOBY has a clear patent on his printing-frame, and it does not infringe on the Mezzotint patent. Parties reporting the same to injure the sale of his frame had better look out. Any one buying them, can use them without fear of any one.

VOIGTLANDER & SON LENSES.

Ryder's Art Gallery, 239 Superior St., Cleveland, Ohio, Dec. 18, 1872.

Benj. French & Co.

Dear Sirs:—Twenty-four years ago I bought and commenced using my first Voigtlander Lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good.

Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before.

Yours, truly, J. F. RYDER.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition.

STEREOSCOPIC NEGATIVES WANTED.—Parties baving for sale new, unused, stereo. negatives of attractive American scenery, will oblige us by sending a list of them and the prices.

BENERMAN & WILSON, Phila.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1874, \$4.50.

Office of Wilson, Hood & Co.,

Dealers in Photographic Requisites, Frames,

Stereoscopes, and Views,

No. 822 Arch Street,
Philadelphia, September 20, 1873.

We have pleasure of announcing that we have in stock a small lot of Albumen Paper of the celebrated manufacture of the Albion Albumenizing Co., of London, England.

Following are colors, quality, and price: White Saxe,per ream, \$34 00 ... Blue 66 34 00 Pink 4 6 White Rives,..... 33 00 Blue 33 00 66 Pink 33 00

We have had it well tried and can advise our customers to purchase.

Criswold's Stereoscopic Compositions. Read advt.

Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. EMMONS, Baltimore, Md.

SITUATIONS OPEN.

Advertisements in this department of Specialties will be inserted at twenty-five cents for every seven words, or fraction of seven words, and must be paid for when the advertisement is sent; stamps for answers should also be sent, unused stamps returned. Each advertiser will be given a number, and the answers all coming to this office will be forwarded promptly and confidentially to him. This column is for the aid of photographers needing assistants, and an advertisement in it is sure to bring just what is wanted.

For a first-class printer and toner. Wages \$20 per week. Do not apply unless you are worth the money. Address "23," care Philadelphia Photographer.

For a retoucher. A native German preferred. Nothing but negative retouching to do. State terms. Address "11," care Philadelphia Photographer.

For a lady attendant, who would also be expected to mount and touch out spots in prints, in a small western gallery. Address "42," care Philadelphia Photographer.

For a young man wishing instructions in photography. Wages paid according to usefulness. Address "112," care Philadelphia Photographer.

Wanted at once. A man of known and acknowledged ability as operator. He must be of good address, good habits, orderly, and careful in his work; a good positionist; understanding the production of shadow effect and stylish work, and, with an assistant in the dark-room, be able to make forty negatives a day. The situation is in one of the best galleries in the country, in a city of 150,000 inhabitants. The man who can meet the above requirements can have a permanent situation, will be fully appreciated, and paid all his services are worth. He will please address Proprietor, care Philadelphia Phatographer; stating all such facts in information as will be desired by "Proprietor."

For a first-class water colorist and crayon worker. Address "43," care of Benerman & Wilson.

Criswold's Stereoscopic Compositions. Read advt.

WAYMOUTH'S VIGNETTE PAPERS.

"I am using and like them very much thus far."—A. MARSHALL, Boston.

"A sensible improvement."—GEO. S. COOK, Charleston, S. C.

The Rapid Photo. Washer is a perfect success, and it is something that has long been needed.

SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

We cannot have letters directed to our care unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

As a good operator, in a gallery in New England, or in eastern or central New York. Address P. L., box 122, Bridgeport, Ct.

By a first-class toner and printer. Can work in the dark-room. Address "Business," care of C. R. Bronson, Bridgeport, Ct.

In city or country, as first-class painter on porcelain and albumen; also, an A No. 1 negative retoucher. The best wages expected. Address Henry Muraour, care of Mr. Debauveris, 2, 4, & 6 Howard Street, New York.

By a practical artist in crayon, water colors, and India ink. Have long experience. New England or Middle States preferred. Address Theo. Harding, Cleveland, Ohio.

As operator and retoucher. Address Pleasant C. Hunter, 284 Green Mt. Av., Baltimore, Md.

In a first-class Eastern gallery, as printer and toner or operator's assistant. Address Ed. E. Bliss, 147 Adams Avenue, Detroit, Mich.

As a negative retoucher. References: J. H. Lampson, Portland, Me.; F. W. Hardy, Bangor, Me. Address Henry C. Call, Bangor, Me.

By an artist. Can work in water colors, ink, and crayon; or can assist in dark-room. Ten years' experience. Address O. L., care of Slee Bros., Poughkeepsie, New York.

In some gallery, as printer or assistant operator; have had six years' experience. Can give good reference. Address Billie, care P. O. box 253, Mobile, Ala.

In a good gallery, by a thoroughly practical artist in water colors, crayon, and India ink. Am a good workman and give good likenesses. Address J. Roche, Artist, Station D, New York City.

As a retoucher, in a first-class gallery, after the 10th of April. Address M. E. Torrey, Drawer 254, Kalamazoo, Mich.

By a lady, a situation as a good negative retoucher. Address Miss L. Benning, Holtsville, Suffolk Co., Long Island, New York.

By a lady, as a good negative retoucher; can also finish photographs in oil, water colors, or India ink. Samples of work on hand. Address S. E. P., Box 54, Ovid. Seneca Co., N. Y.

ELBERT ANDERSON'S BOOK AND MOSAICS, 1874, \$4.50.

By a gentleman who thoroughly understands the different branches of the picture business; would prefer a situation in a frame manufactory, stock depot, or art store. Address Artist, Box 54, Ovid, N. Y.

An A No. 1 operator, speaking French and German, at present engaged in a leading gallery in New York, is open for an engagement from April 1st; at fair salary, or interest in good galery in lieu of his services. Address "Veritas," care Mr. L. Dubernet, 15 Amity St., N. Y. City.

By an artist, in a first-class gallery, to work in India ink and water colors; also, negative retouching. Address Artist, 81 Breckenridge, Street, Buffalo.

As assistant in a first-class gallery, chance for improving and permanent situation more of an object than salary. West preferred. Address Photo., care box 364, Oil City, Penna.

By a young man, having had five years' experience in the business, and being fully enabled to operate, retouch, print, and tone. I will work for salary or rent rooms. Address C. F. Voigt, 661 Short Street, Milwaukee, Wis.

By a first-class photograph printer. Salary \$18 per week. Address A. Thiese, box 731 Taunton, Mass.

By a first-class printer. Best of references given. For further particulars, address Chas. W. Hearn, 123 Congress St., Portland, Maine.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary, 27 Central Square, Cambridgeport.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.—At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N. Y.—Fourth Tuesday in each month, at 179 Montague Street. Rev. Dr. C. H. Hall. President; Chas. E. Bolles, Cor. Secretary.

Maryland Photographic Association, Baltrmore.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N. H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Society of Philadelphia.—At No. 520 Walnut Street, third floor, first Wednesday of each month. J. C. Browne, President; E. Wallace, Jr., Secretary, 1130 Spruce Street.

Pennsylvania Photographic Association, Philadelphia.—At the galleries of the members. H.H. Phillips, President; R.J. Chute, Secretary, Office Philadelphia Photographer.

Photographic Association of the District of Columbia, Washington, D. C.—E. J. Pullman, President; C. M. Bell, Secretary, 459 Pennsylvania Ave, Washington. First Tuesday, monthly.

Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

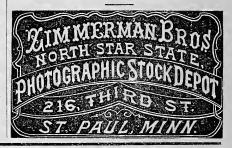
Photographic Association of Western Illinois.— At Galesburg, first Wednesday of October, January, April, and July. S. T. Bryan, President; J. F. Barker, Secretary, Galesburg.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State Street.

Chicago Photographic Institute, Chicago.— 1st Monday, monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month.

J. Samo, President; Jennie M. Crockett, Sec'y.



THE LEBANON RUSTIC FRAME.

The subscriber desires to call attention to an Entirely New Style of Carved Frame, unique, handsome, and stylish, and very becoming to photographs, which he is now manufacturing, and will furnish at the following prices:

Larger sizes \$3.00 per dozen for each additional four inches or less in length and breadth. Sample of each size, except the two smallest, sent on receipt of price. Orders for one dozen or more filled C.O.D. if ten per cent. is sent with order.

ATTENTION!

We are informed that some of our competitors are advancing the prices of

PHOTOGRAPHIC GOODS,

and we have been requested to do the same, but have declined to enter into any combination whatever.

PHOTOGRAPHERS can rest assured that we shall adhere strictly to our LOW PRICES,

as published in our Catalogue of August, 1873, until further notice. The prices therein quoted are the lowest yet made, and all who have not received that list will please send us their address, when it will be promptly forwarded.

Notice our very low prices on

Ferrotype Plates, Camera Boxes, &c.

Everything sold at bottom figures, and all orders executed to the letter, and with the greatest of promptness.

Agents for the Northwest for Weston's Rotary Burnishers and Scotch Albubumen Paper.

RICE & THOMPSON'S

Mammoth Stock House, 259 Wabash Av., Chicago.

D. J. RYAN'S



SOUTHERN

Photographic Ferrotype

STOCK DEPOT,

Savannah, Geo.

FIRST-CLASS STOCK
AT NORTHERN PRICES,

Saving Time, Freight, Insurance, Drayage, &c.

SEND FOR PRICE LIST.

PHOTOGRAPHIC GOODS

FOR SALE AT ALMOST NOTHING.

BARGAINS FOR PHOTOGRAPHERS.

The Late Fire

In Sherman's Building having caused a portion of our stock of Books and Magazines to be deluged with water, we offer the following bargains to operators, assistants, employers, &c.:

86	Copies	Dr. Vogel's Reference-Book,	\$0	50
43	"	Anderson's Skylight and Dark-Room,	["] 1	25
147	66 :	" Comic All-my-Knacks (paper),		20
41	"	" (cloth), .		30
72	66	How to Sit for your Photograph. "		20
16	46	" " (paper), .		10
26	66	Carbon Manual (cloth),		50
32	66	Photographic Mosaics (cloth),		30
129	66	" (paper),		25
160	66	Linn's Landscape Photography,		25
6		Wilson's Landscape Studies,	1	50
11		Bigelow's Albums,	2	50
84	66	Year-Book of Photography,		25
70	44	Glimpses at Photography,		50
46	66 =	How to Paint Photographs (cloth),		75
452		Photographic World (1871 and 1872),		10
236	44	Philadelphia Photographer (1865 to 1874),.		15

The above goods were WET and not burned. They are now dry, and for all practical uses as good as new books, but so stained that we cannot sell them for new, and we offer them for one month only, at the above rates.

LET THE ORDERS COME NOW! One dollar will buy lots of useful reading! A good chance to fill up back volumes of our Magazines.

State your orders explicitly.

BENERMAN & WILSON, Photographic Publishers, SEVENTH & CHERRY STS., PHILADELPHIA.

For one month ONLY! For ONE month!

THE NATIONAL PHOTOGRAPHERS' CHEMICAL CO.

WM. S. PENDLETON, President.

JOSEPH N. MADDOX, Secretary.

AUGUSTUS JENNINGS, General Superintendent.

Office, No. 352 Pearl Street, New York City.

Capital Stock, \$300,000, divided into 3000 Shares, of \$100 each.

The objects for which said Company is formed are the following, viz.: The purchase of SHAW'S PATENT PROCESS, for recovering silver and gold from spent and waste photographic solutions and washings; the selling of rights, and the granting of licences under said patent; collecting and reduc-

ing of photographic waste, and refining of gold and silver.

This Company being fully Incorporated under the Laws of the State of New York, no liability attaches to any stockholder beyond the payment of the amount of capital stock subscribed for-which may be paid by installments of \$5.00 per month, upon each share subscribed for, or may be paid in photographic waste, at the option of each subscriber, and we obligate ourselves to work the waste for all of our stockholders at 10 per cent., to the amount of \$100 annually, for every share of stock held by each after such stock is paid for.

We have made arrangements with Mr. Shaw to remit all claims for past use or infringement of his said patent, which he may have against any photographer who subscribes for stock in our Company—proportionate to the amount of such claim—prior to the first of July next.

We will also receive in payment for subscription to our capital stock, from all photographers who have subscribed and paid therefor, all certificates of the capital stock of the SHAW & WILCOX COM-PANY, at their par value, provided such certificates are presented for exchange prior to the first of

August next.

We have likewise made such arrangements with Mr. Shaw, that all photographers who have heretofore subscribed for the stock of the Shaw & Wilcox Company, and have paid any portion of such subscription, or who hold any other valid claim against said Shaw & Wilcox Company, can, by corresponding with Mr. Shaw, obtain from him a due-bill for the amount of their claim, which said due-bill will be accepted by us at its face value, in payment for subscription to our capital stock, provided the same is presented to us prior to the first day of August next.

In fact, we have secured from Mr. SHAW such exceedingly liberal terms for the purchase of his Patent that no inducement whatever is left for any one to oppose it, as the cost attendant upon a single suit would be far more than a share or two of the stock; and when such suit was ended, the photographer would have nothing for his money, let the case go which way it would. Whereas, by expending one-fourth of the cost of such suit in the stock of our Company, he can make a profitable investment, besides securing for himself the free use of the patent, and the right of having all of his waste worked at 10 per cent., if he so elects.

We would therefore urge upon all photographers throughout the land to unite with and assist us in consummating the purchase now, while it may be had upon such exceedingly advantageous terms, and thus save the entire fraternity from all further cost and annoyance from harrasing litigation.

Among those who have already subscribed for stock in our Company will be found the following names, who will be recognized at once as among the leading and most prominent photographers of the country:

S	Share	s.		Shares	
WM. S. PENDLETON, Brooklyn, N. Y	10	\$1000	A. N. HARDY, Boston, Mass	3	\$300
Frank Jewell, Scrauton, Pa	10	1000	WM. H. RHOADS, Philadelphia, Pa	5	500
EDWARD KLAUBER, Louisville, Ky	7	700	ALBERT MOORE, Philadelphia, Pa	5	500
I. B. Webster, Louisville, Ky	5	500	CHAS. H. WILLIAMSON, Brooklyn, N.Y	5	500
HENRY ROCHER, Chicago, 111	5	500	ALVA PEARSALL, Brooklyn, N. Y	5	500
ALLEN & ROWELL, Boston, Mass	5	500	JOSEPH N. MADDOX, Brooklyn, N. Y	5	500
James W. Black, Boston, Mass	5	500	CHARLES K. BILL, New York	5	500
James W. Turner, Boston, Mass	3	300	RICHARD A. LEWIS, New York	2	200

Eurely, no photographer should hesitate for a moment to join an enterprise endorsed and sup-

ported by such names as the above.

Aside from the advantages to accrue from securing the free use of the patent for ourselves, there is no doubt but it will prove a profitable investment, as Mr. Shaw has already made contracts with upwards of twelve hundred of the leading galleries of the country, whereby he is to work their waste at 25 per cent., so that, allowing the waste from these twelve hundred to yield him an average of only \$25 a year each, he is sure now of at least thirty thousand dollars a year income from the patent as it stands—a sum sufficient to pay a dividend of 10 per cent. upon our entire capital stock. We, therefore, cordially invite your co-operation in securing, if possible, within the next ninety days sufficient subscription to not only enable us to purchase the patent, but to secure all of Mr. Shaw's contracts with outsiders, and thus make a paying investment from the start, besides securing the free use of the patent for ourselves. For further particulars, address

AUGUSTUS JENNINGS, Gen'l Supt., 352 Pearl St., New York City.

Photographic Card Warehouse.

A. M. COLLINS, SON & CO.,

MANUFACTURERS,

No. 18 South Sixth St. and No. 9 Decatur St.,

PHILADELPHIA.

EVERYTHING APPERTAINING TO THE LINE OF OUR MANUFACTURES FURNISHED WITH CARE AND PROMPTNESS.

Our long experience in and facilities for the manufacture of these goods, and familiarity with the peculiar wants of Photographers, enable us to offer superior inducements to those who may favor us with their orders.

JAMES F. MAGEE & CO.

MANUFACTURERS OF

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PHOTOGRAPHIC CHEMICALS,

No. 108 North Fifth Street,

PHILADELPHIA.

Stock Dealers only Supplied.

LANTERN SLIDES.

A FINE STOCK ON HAND,

SELECTED FROM

HOME & FOREIGN CATALOGUES

EMBRACING

Views of all Parts of the World!

PLAIN, COLORED, AND COMIC

LANTERN SLIDES,

OF ALL KINDS, AT LOW PRICES.

SCIOPTICONS AND LANTERNS SUPPLIED.

SELECTIONS MADE PERSONALLY.

ALSO, GLASS STEREOSCOPIC PICTURES.

BENERMAN & WILSON,

Southwest cor. Seventh and Cherry Streets, Philadelphia.

Photographic Publications, 1874.

Knowing the advantages of well-written works on Photography to our readers, we issue our annual catalogue, that they may have the opportunity of selecting the very best. We always find the photographer who reads what is published pertaining to his profession, to be the photographer who succeeds in his business the best. Above all, those who regularly and continually receive a good photographic magazine are those who are always ahead with new goods, new styles, and new information. We recommend an investment in a part or all of the list below, and will be glad to mail them to you on receipt of price.

CATALOGUE.

A The Philadelphia Photographer.

ne oldest, best, and most popular Photographic Magazine in America. Eleventh Year. Please read the ospectus on page three of cover and premium list opposite. Subscription price, \$5 a year, \$2.50 for six onths, in advance. Current number, 50 cents. Specimen copies, free.

B The Skylight and the Dark-Room.

By Elbert Anderson, operator at Kurtz's studio, New York. This is the most beautiful and elaborate work on the art ever published. It contains nearly 250 pages—large, square—twelve photographs made by the author to illustrate the lessons of the work, and almost two hundred fine wood-cuts. See advertisements. Price, in cloth, gilt, postpaid, \$4.00.

C Photographic Mosaics.

The 1874 edition excels all of its eight older brethren. The list of articles is made up of original contributions, written especially for its pages, on all departments of the art, wholly by practical men who are only heard from once a year through the persuasion of the editor, in this way. See special advertisement. 146 pages. Paper cover, 50 cents. Cloth, \$1. A few copies of former editions, from 1866, at same price.

D The Ferrotyper's Guide.

A new work on the Ferrotype. Price. 75 cents.

E Bigelow's Album of Lighting and Posing.

This is not exactly a book, but a collection of 24 large Victoria size photographic studies in lighting and posing, made especially to teach how to light and pose ordinary and extra-ordinary subjects in all the plain, fancy, "Rembrandt" and "Shadow" styles. It is accompanied by an explanatory key of instructions, together with a diagram for each picture, showing how the sitter and the camera were placed in the skylight, their relation to the background, and what blinds were opened and closed at the time of the sitting. It almost supplies a rule by which you can quickly tell how to manage every subject that comes to you. The studies are mounted on folding leaves, so that twelve can be examined at once. Price, in cloth, gilt, \$6, postpaid.

${f F} \hspace{1cm} Wilson's \hspace{0.1cm} Land scape \hspace{0.1cm} Studies.$

An album of landscape studies in style similar to Bigelow's Album, containing ten 5x8 views, with the ormula, &c., by George Washington Wilson, Esq., the renowned Scotch landscape photographer. A splendid work. In cloth, gilt, \$4.

G Handbook of the Practice and Art of Photography. By Dr. Vogel. Out of print. New edition during the year.

H How to Paint Photographs in Water Colors.

A practical Handbook designed especially for the use of Students and Photographers, containing directions for Brush Work in all descriptions of Photo-Portraiture, Oil, Water Colors, Ink, How to Retouch the negative, &c. By George B. Ayres, Artist. Third edition. Differing largely from previous editions. Price, \$2.00.

I Pictorial Effect in Photography.

By H. P. Robinson, London. Out of print. New edition in preparation.

J How to Sit for your Photograph.

This is a fine little work of 48 pages, written by the wife of a celebrated New York photographer, for the purpose of educating the public on the all-important subject of sitting for a picture. It is bound in cloth at 60 cents per copy, and paper cover 30 cents.

K Lookout Landscape Photography.

By Prof. R. M. Linn, Lookout Mountain, Tenn. A pocket manual for the outdoor worker, and full of good for *every* photographer. 75 cents. Be sure to get it.

L Himes's Leaf Prints; or, Glimpses at Photography.

By Prof. Charles F. Himes, Ph.D. Full of useful information for the photographic printer. Illustrated with a whole-size photograph. Cloth, \$1.25.

M The American Carbon Manual.

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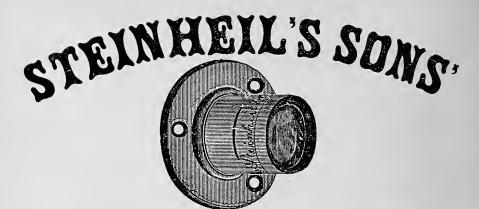
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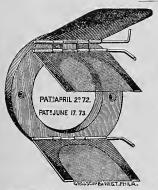
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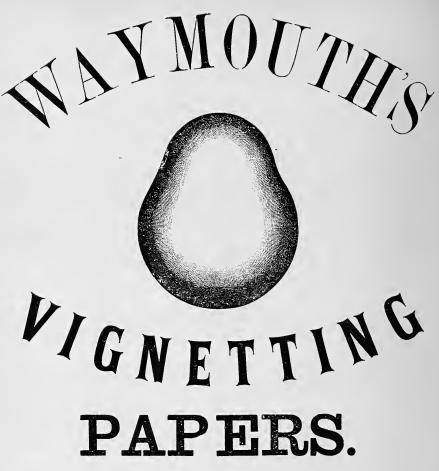
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When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

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44	6, 7, 11, 12, and 13,	"			and Victorias,		perdoz.,		75
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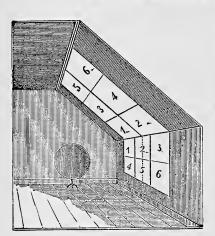
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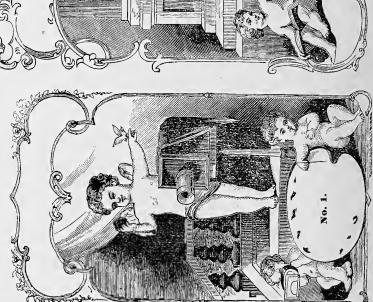
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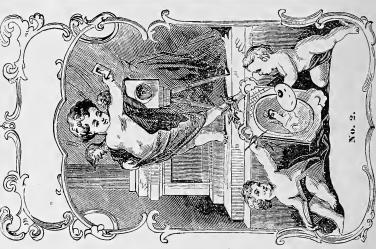
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3d. It is also intended to convey to the public at large the fact that photography is not a branch of mechanics, nor photographers a sort of mechanic themselves, but that both are entitled to respect, the same as the family physician or the minister; that the photographer has rights as well as the public; that he must be trusted, and that he alone is responsible for his results. Moreover, that he must make the picture and not they.

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We will send samples of the book and special rates to any who may desire it. Over 500,000 have

We invite you to examine the good words which our patrons have sent us concerning this publication.

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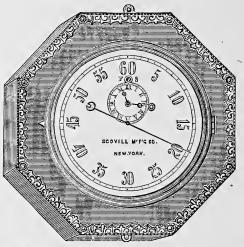
- "I sent one out West to a friend, and she wrote that she was now posted, and when she came here to have a picture made, she would come 'according to directions.' ,'-A. Bogar-DUS, New York.
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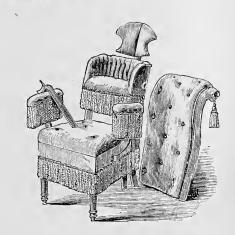
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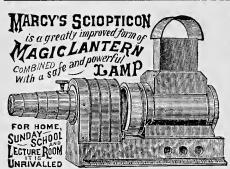
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Declining a Kiss.
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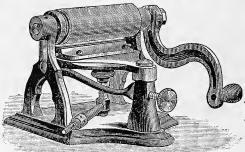
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Your truly,

C. M. PARKS, Solicitor of Patents.

Office of C. M. Parks, Solicitor of Patents, 428 Seventh Street, Washington, D. C., January 5th, 1874.

WM. G. ENTREKIN.

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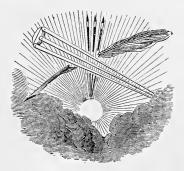
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THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIO ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

May, 1874.



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MOORE, ALBERT. Solar Printing.

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Special votes of thanks were given for them by the Photographic Society of Philadelphia; Photographic Association of West. Illinois; Chicago Photographic Association; Indiana, District of Columbia, and Maryland Photographic Associations; Photographic Section of the American Institute; German Photographers' Society, New York; Boston and Brooklyn Photographic Art Associations, whereat they attracted great attention and admiration.

A Few Words from those who have received them as Premiums for New Subscribers:

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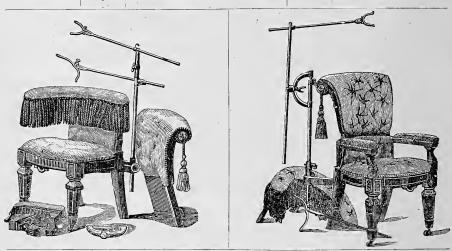
side their collection don't deserve them."-J. Pitcher Spooner.

"They are by far the best specimens of photographs of white drapery that I ever saw, and the artistic part leaves nothing to wish for."—
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recommendation for it, say what you please and we will endorse it. You cannot praise it too highly."—SLEE Bros., Poughkeepsie, N. Y., Sept. 10, 1872.

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AMSTERDAM.

Philadelphia Photographer.

Vol. XI.

MAY, 1874.

No. 125.

Entered according to Act of Congress, in the year 1874, BY BENERMAN & WILSON, In the office of the Librarian of Congress, at Washington, D. C.

STILL ANOTHER GOLD MEDAL.

Being well pleased with our success in our offer of a medal for Portraiture, we now want to stimulate those who work in the field, and give them an opportunity to win a prize. We therefore offer a Gold Medal for the three best Landscape Negatives sent us by the 15th of August. The size to be suitable for our magazine, not larger than 4-4; a 5 x 8 plate is the size we prefer.

The regulations will be the same as for the competition in portraiture, as given on the first page of our April number.

Gold Medal Offered to Foreign Photographers.

WE desire to remind our foreign subscribers of the offer we make of a Gold Medal for the best three portrait negatives sent us by the 15th July, and to renew the invitation to them all to compete. Our American competition just terminated has brought us some of the finest work we have ever seen, and we trust the many foreign artists, whose names are familiar to Americans, will not suffer this opportunity to pass without making an effort to sustain the high reputation they have so long enjoyed.

The regulations will be the same as for the American competition, as given on the first page of our April number. We hope to see as active a contest as we have had on this side, and believe it will result in much good to all, both at home and abroad.

THE N. P. A. AT CHICAGO.

As the time draws near for the next Annual Convention of the National Photographic Association the details are beginning to be arranged, and matters are assuming tangible shape. We call attention to Mr. Hesler's article further on, extending an invitation to all to come, and to the directions for exhibitors. The whole country yielded to the Northwest and appointed the next convention at Chicago, and we want to impress upon the photographers of that section the important fact that the success of the Convention will depend very much upon how they take hold of it, and the extent to which they support the Local Secretary. As united action is always more potent than separate individual effort, it would be well for photographers to organize, wherever a dozen of them can be brought together, for the special purpose of promoting the interests of the National Photographic Association meeting to be held in Chicago in July.

A notice just received from Mr. Hesler indicates that the photographers there are moving in the matter, and it only requires a united effort on the part of all, both in city and country, to make this the grandest exhibition that has ever been held.

THE SOLAR NEGATIVE PRIZE.

Mr. Albert Moore, who has kindly offered a Gold Medal for the best Solar Negative, desires us to say that the responses have not been as numerous as he wishes they might be, and he has extended the time to June 1st.

This is a branch of photography in which there is quite as much room for improvement as any other, and we do hope those who can, will show interest enough in the matter to compete for this medal. No so much for the sake of securing the medal as to enable Mr. Moore—who is unexcelled as a solar printer—to exhibit some examples of work at the Chicago Convention which will do credit to American photography.

THE MAMMOTH OFFER.

WE hope we will be pardoned for calling attention to this matter again. Tickets are "going," some taking as many as ten, at a time. This is good, but there are more left. Some objection is made to the method proposed for drawing at Chicago, and we are authorized to say that holders of tickets may dictate any other plan, and whatever the majority prefers will be respected and followed. Perhaps it would be best to have no voting at all but a simple drawing, and the first number drawn to be the successful one, whether the owner be present in person or by proxy, or not represented at all. Please announce your desires in the matter when you send for tickets this month, and we are assured that your wishes will be respected.

In order that it may be known what sort of an instrument is offered we quote a letter to B. French & Co. from Mr. Landy, as follows:

> 208 West Fourth Street, Cincinnati, February 25th, 1874.

Messrs. Benj. French & Co.,

Boston, Mass.

GENTLEMEN: I have tried the Mammoth Voigtlander you sent me, and I consider it the best large instrument I have ever seen, and I have tried those made by other makers, Dallmeyer's included, and they do not compare with the Voigtlander. I have

told P. Smith & Co. to write you that I would keep it.

Respectfully, yours,

J. LANDY.

P. S.—All my baby pictures were made with half size Voigtlander lenses.

J. L.

WET BOOKS.

Some of our readers were doubtless disappointed in not receiving copies of the damaged books they ordered; but we can only say if they were disappointed, we were surprised. Our last number had scarcely been out of the office a day before the orders began to come in, and in a few days Anderson's Skylight and Dark-room, Bigelow's Album, and Wilson's Landscape Studies were exhausted. We congratulate those who were so fortunate as to get those books, at such a discount, and believe they will do them good. We still have a few more copies of the other works on hand, and we keep the offer open another month, as will be seen by reference to our advertising pages. Most of these books are damaged much less than we at first supposed. The numbers of the Photographic World, and Philadelphia Photographer, especially, have dried out so that it can scarcely be discovered that they have been wet; and at the price we are offering them they will give more photographic information than can be had for the money in any other way. The price on any of the damaged goods hardly pays us for packing them, but we want to get them off. We want to wipe out every trace of the late deluge, and reorganize with everything new and fresh. Send along your orders now.

HINTS UNDER THE SKYLIGHT.

BY R. J. CHUTE.

THE EYES (continued).

Under this head last month I made some observations on the *general* management of the eyes; I now come to the consideration of some *special* cases that require special treatment.

The first of these is crossed eyes, or eyes one or both of which are turned. Generally

it is desirable to overcome a difficulty of this kind, so that the deformity may not appear in the picture, and it is not the least of the artist's trials sometimes to accomplish this satisfactorily.

Where the eyes are badly twisted, both perhaps being turned in or out, the easiest and most effectual method of overcoming the difficulty is to make a profile if the face will at all admit of it, being careful to place the eye-rest so that the eye that shows will appear to be in a natural position. In such cases as are illustrated by the annexed figure, where one eye only appears to be



affected, they may be made to appear quite straight and natural. By placing the rest at A, one eye will appear to be looking directly forward, while the other seems to look at B. Now by carrying the rest to C the twisted eye will be brought to D, and the

difference between them will be so equalized that oftentimes no fault is perceptible in the picture.

Secondly, serious difficulty is often experienced in photographing eye-glasses and spectacles. This has been so general that many artists keep a supply of frames, of various patterns without glasses, to substitute for those worn by the sitter when required. This is well, and is a much less evil than to produce the eyes blank by reflections in the glasses. But to this there is objection in many cases. If the sitter is used to wearing glasses, his eyes are much more easy and natural with them than without. Some persons can distinguish no object whatever at any distance with the naked eye, hence, when an effort is made to look where nothing can be seen, the eye is wearied and has a strained, unnatural expression which affects the whole face.

Usually a more successful sitting can be had when the sitter's own glasses can be used, and with few exceptions they may with care be used with perfect success.

Glasses that have a very convex surface are the most difficult, as they gather reflections from so wide an angle.

Ordinarily, however, a little manipulation

is all that is necessary; and this is brought to bear in so poising the glasses that all reflections will be avoided. By raising or lowering them, by tipping them forward or back, they may be brought into such position as to give the eye perfectly clear. But it must be remembered that this cannot be done without attention to the surroundings in the studio. If there be a light carpet, light screens, or light walls, their surfaces will be reflected in the glasses, and all efforts to avoid it will be fruitless, except by the removal or covering of the reflecting sur-Light from the carpet may be avoided by spreading a dark covering over it in front of the sitter for the occasion; screens and walls may be covered by placing a small dark screen near the sitter. But not the least important item in this connection is what the artist himself may wear. A light coat on his back is mirrored in the glasses, or in the eye even, and yet he wonders where the reflections come from! He who wants his pictures free from reflected lights in the eyes, will do well to see that they are not produced by anything his fancy or convenience may induce him to put on. Dark drapery is said to be best for the sitter; it certainly is best for the operator.

Thirdly, weak and squinting eyes are often very perplexing, photographically. The first of these must be turned as much as possible from the light, and if disposed to wink very much, which is generally the case, the sitting must be made very short. A dark screen in front of the sitter is a great relief to weak eyes. In cases of this kind care should be taken, too, to see that the sitter does not fix the eyes on any point until the plate is ready to be exposed. This is a point that I fear is too often overlooked, and the sitter is allowed to "gaze" at some object from the time he takes his seat till the whole operation is through with. There are many matters of this kind that affect the comfort of the sitter, and have more or less influence in determining the degree of success in the sitting. A liberal investment of courtesy, patience, and consideration of the feelings and comfort of those who place themselves in our hands for so personal an interview as sitting for their photograph, will pay a good dividend in greenbacks.

THE SOUTHWORTH - WING PATENT.

EDITOR PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: Will you please say to the photographic fraternity that the suit brought by Wing, Southworth, and Ormsbee against the undersigned, at this place, for infringement of the above patent, has developed some new and very important evidence for the defence, which is now being printed, and upon which we hope to get a decision in May or June next.

Photographers interested personally, or for the good of the fraternity, can obtain a copy of this testimony by addressing the undersigned. I can also furnish printed "answer to bill of complaint," and other legal papers, which will enable any photographer to conduct the defence at little cost.

Yours truly,

J. H. TOMPKINS, Grand Rapids, Mich.

A Class in Landscape Photography.

As the season approaches when many a photographer will long for the air and sunshine among the beauties of opening spring, and many others will look about them for suitable appliances with which to go forth, either for pleasure or profit, and select some of the choice bits that nature has scattered profusely almost everywhere, we have thought it expedient to form a class for study and mutual improvement in this branch of photography; as we believe there are enough that are interested in this direction if they will but unite in the enterprise, to make it very interesting and instructive to all who are wishing and willing to learn.

With this end in view we extend a cordial invitation to all who are interested in landscape photography, either practically or as amateurs, whether experienced or just beginning, who desire to improve and gain such information as a full and free discussion may impart, to join the movement, and notify us at an early day if they are willing to do so. What we mean by this is a class of active workers who take especial interest in this department, and who are willing to communicate to us their experiences, me-

thods of working, and any dodges or devices that they may think new or interesting. The meetings of the class will be held monthly in the *Philadelphia Photographer*, and the pith of all the matter collected will be incorporated in the report.

In making reference to any thoughts communicated by members we will use fictitious names if the writers so prefer, and make the whole *incognito*.

Our purpose will be to benefit every reader of this journal, if possible, by this series of articles, but we are sure the greatest advantage will be derived from them by those who take part in the discussion, and give as well as receive.

We shall call to our aid the experience of some of the best landscape photographers, as given in their writings, and endeavor in every way to make the series thoroughly practical.

Having now stated the object we have in view, we submit the matter to the consideration of all who are interested, and hope they will signify to us if they wish to be enrolled as members of the class, so that at our next meeting we can start out fully organized for the work before us.

We shall endeavor at each meeting to lay out the work for the next, so that during the month, questions may be asked and communications sent in reference to the particular subject before us.

At our next meeting we shall consider the question of apparatus. The best lenses for different kinds of work, the best camera box, the best dark-tent, and if time and space permit give some formula for collodion, bath, &c. In reference to all these we invite contributions, with suggestions from theory or experience as to what may be best adapted for the work. We also invite contributions from dry-plate workers, as this might be interesting to many, and form an important item in our studies. Who will be first to join the class in landscape photography?

The new set of prize prints contains the best work of some of our most talented photographers, and is the best series of studies by far, and the cheapest, that was ever published.

PERMANENT SENSITIVE PAPER.*

BY C. F. RICHARDSON.

This subject has been much discussed for the past two or three years, from which its importance may be inferred. But the advantages of a paper which will remain sensitive and white for some weeks before printing, and for some days between printing and toning, are too evident to need a recital. I think it is generally admitted that no process has yet been published by which results equal to those on fresh paper can be obtained, and before giving my method of working, I will briefly review some of those which have been published, and state some of the objections to them. Some of these objections I have learned from actual trial, and others from the published statements of others.

One of the first methods proposed was by the addition of citric, tartaric, or oxalic acid to the sensitizing solution. Citric acid appears to be the most powerful agent for the purpose. But although paper prepared in this way preserves its whiteness for a long time, I am convinced by numerous trials that as good prints cannot be made on it as by the usual process. The prints, whether the paper be fumed or not, are of an unpleasant foxy red, and although they can be toned to dark tints, they have a peculiar mealy color, difficult to describe and as difficult to like.

Another method consisted in partially washing away the free nitrate of silver after sensitizing, and supplying its place by submitting the paper to strong furning during the printing. But besides the inconveniences of this, it was admitted by many of those who advocated this method that there were difficulties in the way of producing first-class prints, and the process has certainly never come into general use.

About a year ago Mr. Hopkins republished a process which had been proposed some years previously, and which consisted in packing the paper, when nearly dry, between sheets of blotting-paper which had been previously soaked in a solution of carbonate of soda and dried. This preserves

the paper white for a considerable time, some which I have under trial being two months old, with slight discoloration, but on the second day after sensitizing, the prints were flat and poor.

On the 3d of May, 1872, Mr. J. M. Turnbull published in the *Photographic News*, a method which consisted in floating the paper, when partially dry, on a bath of citric acid. I tried this, and although I did not succeed with it, the prints seeming to need more silver, you will see that I am indebted to Mr. Turnbull for a valuable hint.

Two evils result from keeping ordinary sensitive paper, which appear to be independent in their nature, although springing from the same cause, viz., the combination of the free nitrate of silver with the sizing of the paper. First, the paper discolors; second, it prints flat and mealy. In any successful keeping process, it is necessary to overcome both these defects, and although there are many ways of preserving the color of the paper, it does not seem so easy to maintain vigor.

The process which I shall now give you is no longer experimental, but one by which I have done all my printing for a year and a half, and which two others have used from four to six months with success. Some members now in the room have also tried samples of the paper, and can speak as to the results.

Supposing that you are using a 40-grain bath, slightly alkaline, prepare the following, which we will call No. 2:

Filter, and place in a tray beside your usual bath, which we will call No. 1. Float your paper from two to three minutes on No. 1, drain well, and place directly on No. 2. Leave it until a second sheet is ready to remove from No. 1; then hang the first up to dry. Proceed in the same manner till you have sufficient to last a week or more. When dry, smooth it out face downwards on a sheet of tissue-paper, and roll it back inwards, and in half an hour it will lay flatin your drawer.

^{*} Read before the Boston Photographic Association.

This paper will now keep two or three weeks in cool weather, and when required for use, is fumed with strong ammonia for one hour. After fuming it will not keep so long, but may be relied on for a week at least. Print about the usual depth, and the prints will keep white before toning as long as the fumed paper.

The paper being acid, would fail to tone in most baths without some preparation for it. Therefore, add to the first water in which the prints are washed before toning saturated solution of bicarbonate of soda, at the rate of about an ounce to a third of a pailful of water. Leave them in this for ten minutes; then give them one or two changes of simple water, and tone and fix as usual, taking care not to overtone. I use the acetate of soda bath, but I have no doubt any good bath will work equally well. I have used different brands of paper with essentially the same results. Should you wish to tone quicker, use more soda.

Like most acid sensitizing solutions, No. 2 discolors after a time, when it may be necessary to use kaolin to decolorize it. As the sheet is wet when laid on No. 2, but little of this is used up, making the process an economical one. No. 2 improves much with use.

Should a slight scummy deposit show on the paper when dry, it may be disregarded, as it dissolves in the fixing bath, but it may be entirely prevented by the addition of a few drops of nitric acid to No. 2. This deposit is citrate of silver, formed by the alkaline action of the first bath with the citric acid of the second. The amount of nitric acid given in the formula will probably entirely prevent its formation, unless No. 1 is too alkaline. As the acid in No. 2 is being constantly neutralized by the alkaline solution on the paper, a few grains of citric acid should be added occasionally if the paper does not keep sufficiently well.

This paper still did not keep as well as I wished, and it occurred to me that a combination of this method with the carbonate of soda paper might be an improvement. I accordingly packed some in that paper, and I have here a print made on Tuesday, March 31st, from a sheet which bears date February 18th, and was therefore six weeks old. It works as well as if only a week old, and

shows as yet no sign of discoloring. This was so satisfactory that I have for some time practiced this addition, using common heavy printing paper for the soda.

Although I cannot of course say that there is no other successful method of keeping paper, yet I think a careful consideration of the manipulation employed will show good chemical reasons for the success of this process. When a sheet of salted paper is floated on a solution of nitrate of silver, it is well known that the character of the chloride of silver formed differs greatly according as the solution is alkaline or acid, and considered independently from the condition of the soluble silver remaining upon the paper. This is also seen in the collodion process, for if a plate be excited in an alkaline bath, which is afterwards washed away, and the plate developed in the usual manner, it will show the effect of the alkaline bath by fogging. On the contrary a plate may be excited in an acid solution, covered with an alkaline preservative, and afterwards developed with perfect clearness.

We all remember the change in the character of our albumen prints upon the introduction of the alkaline silver solution and ammonia fuming, the strength of silver and time of floating being greatly reduced. Paper floated upon an alkaline solution furnishes the chloride of silver in the best condition for printing, both as regards sensitiveness and vigor, but also, and by virtue of these qualities, it discolors and spoils sooner. If the free nitrate of silver be entirely washed away from such a paper, it will keep some time, but at the expense of both sensibility and vigor. I therefore come to the conclusion that in the method which I propose the chloride of silver retains the peculiar properties conferred by an alkaline formation, while the acid of the second solution prevents the free nitrate from acting on the sizing of the paper to its discoloration, and also forms a small quantity of citrate of silver, which still further helps in the production of a vigorous print. The only purpose of the nitrate of silver in the second bath is to retain a sufficient amount upon the paper to produce a vigorous impression.

Although I cannot claim to have completely exhausted the subject, the above theory is sustained by the fact that I have so far been unable, although I have made many trials to that end, to combine the ingredients of these two solutions, or the solutions themselves, in one bath that would produce the same results. I hope this process may receive a fair trial at your hands, as I am confident that you may by its use secure all the advantages of a practically permanent sensitized paper, without the sacrifice of any quality of good printing.

TALK AND TATTLE.

Ar no period of our existence has there been such a revival in the cause of science as there is at present. Old men are dying and leaving their millions for the establishment of Institutes for technical instruction, and lecturers are spreading such knowledge among the people in all directions. How good this is, and may photography share in it, for if there ever was a set of men who needed technical instruction in matters pertaining to their daily avocation, photographers certainly do now. How many are there of them who know why they are able to produce the results they do? And how many of them would know exactly what to do should any important obstruction occur in their manipulations? Photography is an infant yet, and we have not begun to see what there is in it, and we never will until some means are promulgated for the technical education of its votaries.

A correspondent writes viz.: "I am much opposed to your photographic school. We have too many artists now; too much competition, and consequent low prices; and when our college opens up the same facilities for education as law, medicine, and dentistry do, your cheap fry will indeed be cut off, but sons of wealth will come in, and in great numbers, and their competition will ruin the business. Think over it. Pause. We should rather go slow, cautiously close the doors and let no one come in until he has served his two or three years' apprenticeship."

And this from a man who a few years

ago was anxious to embark as a photographer, and whom, although we have never seen him, we literally taught photography by letter, until now he is one of the best workers in his State. For shame. Shall we apply to him the suggestion of Mr. Josh. Billings that "some people forget when they were tadpoles?"

It is not to multiply photographers that we ask for a school for technical instruction in photography; but it is for the purpose of putting more science into those who are, or may come, into our profession.

A few weeks ago, at the anniversary of the Franklin Institute in this city Prof. Morton, in commenting upon the immense advantages of aggressive science, said:

- "Example is better than precept, as the judicious copy book used to say to us at school, and I will therefore take a case and give you two views, the external or artistic, and the interior or scientific, of the same scene.
- "We are in a valley among snow-capped mountains, and before us a lake spreads its mirror to the sky.
- "No breath of air ripples its surface; no wavelet breaks upon its beach; nothing is there but absolute repose.
- "So says the artist; and, painting such a scene, he calls his picture 'Silence,' 'Repose,' 'The Lake of Dreams,' or some such appropriate title.
- "Now, however, let us look at that same scene with eyes touched by the wand of science and opened to see beneath the surface of things.
- "What do we then behold? Is there any longer an impression of repose, of rest, of sleep?
- "Look at that mass of water, with its mirror-like surface.
- "We see there a perfect Sebastopol of flying missiles. Water-atoms hurled in clouds from the surface into the air, water-atoms hurled back from the air into the water surface.
- "It is by such action as this, science shows us, that evaporation takes place, or the invisible though rapid passage of the liquid water into the viewless air.
- "The whole mass of the water is likewise thrilling through with those heat motions,

of which, if deprived partially, it would freeze into ice, and, if robbed utterly, would shrink into some formless horror, of which even the imagination of science can form no picture."

How truly is the photography of to-day represented by the placid lake as viewed through unscientific eyes, and how appropriately a picture of its condition might be called "Silence," or "Repose," or "The Lake of Dreams." But this need not be so. Chemistry and physics, and all the kindred sciences which call upon photography so often for help, stand ready to help us in turn, wand in hand, to see and to understand all that there is "beneath the surface."

V. says: "I have been trying to get you a new subscription or two to send with my own, but have so far failed. The fact is, our people are very mean in some things. The great majority would sooner have a dime novel than the choicest work on art or science, or rather attend a negro minstrel or Black Crook performance than a scientific lecture." Alas! the city in which V. lives is not singular in the propensities which he describes. It is hard to understand why it is that men who want to make a living and more, by their daily work, are so slow to employ all the means within their power to secure the desired end. But it has always been so, for ages at least. "Palissy, the Potter," spent years of diligent experiment in trying to discover the secret of glazing and enamelling chinaware, thus wasting the labor of a lifetime "in learning what the poorest Italian potter could have told him in five minutes." But instead of seeking for information at proper sources, first he plodded along his own way. How many photographers there are like him who might be doing much better if they would but read. In commenting upon the "modern advantages" which the artisans of the present day have, especially in the way of literature, the Public Ledger says: "The point to be made in considering the subject is this: That every man, in whatever calling, in these days of scientific investigation and the printing press, should diligently read whatever pertains to his art, profession, handicraft, or pursuit. There

are not a few who grope in the dark, like Palissy, the Potter. He could not help it, but the modern artisan has no excuse.

* * * * * * *

"The ready writers who keep the printing press in motion are ever on the alert for subjects for their pens, and the man who reads and keeps himself up to the current of events and developments in any branch of human knowledge may find a short cut to the end which Palissy achieved in the journey of a life. He may even learn in 'five minutes' what it has required centuries to reveal. The man who does not read is far from appreciating the force of the question once asked by a 'self-made man:' 'Does one need to know anything more than the twenty-four letters in order to learn everything else that one wishes?'''

In a profession like ours, growing as it does far faster than its years would seem to allow, the followers of it should read *everything* published pertaining to it.

That puts us in mind of "a peace of poitrey" recently sent us. We have not space for it all, even did the "peace" itself convince us that the author is well acquainted with the rules of versification, but we must give a verse or two, because of the wise admonitions which they contain, no doubt from a sincere and honest heart. He is writing about the value of photographic journals, and says: Had it not been for our journals,

- "Where would our art of have been to-day, (I think that you will have to say), Drudgeing along at a feareful rate, In a dilapedating state.
- "Let us open our pocket books, In the editor's eyes and look. We never can lose such a chance, Here is the money in advance."

The last sentiment we like very much.

T. and H. say: "We are not members of the National Photographic Association, but hope to attend the Chicago exhibition. We perhaps are wrong in judging of the Society by some of the members in our State, but their 'advancement of the art' has so disgusted us that we have not taken the interest we undoubtedly should in it." An-

other says: "There are some things about the Association we do not like." Now, let us ask these good people if there is anything in the world that is human, that they find to be just as they want it? We should look at the good the Association does, and not at the evil transactions of a few of its members. Make the highest progress our standard, our objective point, and not fault-finding with our neighbors. In addressing the Franklin Institute a few weeks ago, our old instructor and contributor, Mr. Coleman Sellers, said: "Trust me, the teaching of man by man in frequent intercourse is the most potent means of acquiring knowledge, and knowledge well applied is indeed a power. Say not to me that learning unfits our men for work. I tell you proper instruction is what our working people most need-what the Franklin Institute has ever tried to give them. There is in the world drudgery to be done, drudgery that needs no brain-work, but there will be through all times enough stupidity to satisfy all the wants in this direction, and intelligent laborers will make their heads save their hands to their own profit, and the benefit of the whole human family."

Let'us then support our Association, if only to give a thousand of us each once a year the opportunity of rubbing against each other, and of comparing our work. The good thus accomplished will be sure to diffuse itself and benefit us all, whether we are able to be there or not. Don't let a break occur now.

TO MOUNT WASHINGTON AND RETURN.

WE have been perpetrating another one of those absences from business which all who wish to preserve their health and strength should yield to systematically, and a few notes of what we saw may not be without interest to our readers.

We halted in New York to see the new store of Scovill Manufacturing Company, at Nos. 419 and 421 Broome Street. Instead of entering a dingy old dungeon, as was our wont at "old No. 4," after inspecting the massive double front of iron, we entered the new store. Upon the first floor

are the offices devoted to the several departments of the business, and the stock of some of the special manufacturers of the company; on the west side, occupying all of the space except the room needed for the elevator and stairways, is an immense vertical glass show-case, devoted to the display of the American Optical Company's apparatus. It was worth moving, for the space to make such a show of these unrivalled goods; and now they stand there before the photographer as he enters, not only tempting him, but compelling him to purchase. If photographers have any weakness at all, it is for new and good apparatus, and here is the finest chance on earth to indulge that weakness. Above this floor are four other stories, equally well-lighted and convenient, where goods are stored, and preparations and chemicals and other goods are made ready for market. The top floor we hope is to be devoted to,-well, we may be telling secrets, and we ask you to watch the Times, and you will presently see all about it. The basement and sub-basement are devoted exclusively to photography, where the stock of photographic goods there displayed has no equal, either in size or quality. You can get everything there used in our art. A stone vault for the storage of collodions, cottons, &c., is under the pavement, and is one of the curiosities of the place. Then there are fire-proofs for lenses; a well-lighted corner for Benerman & Wilson's publications, and all the conveniences for the business that experience could suggest. It is altogether an establishment which photography may be proud of. We could say much more about it, but do not want to deprive our companion the Times of the privilege which it will soon avail itself of, of giving an illustrated description of the whole establishment.

From New York to New Haven, where we spent a pleasant hour with our well-known contributor, Mr. John M. Blake. We found him to be one of those patient experimentalists to whom all the sciences, and none more than photography, are so much indebted for the discoveries which they have made and given so freely to the world. Would that we had more of them.

Connecticut and its neighborhood are

much disturbed by Mr. Shaw at present, and an indignation meeting was recently held by the photographers there, at the studio of Mr. J. K. Bundy. We had hoped to gather the particulars from Mr. Bundy, but he was engaged in a procession of Odd-Fellows, and we could not see him. We hope to get them and give them elsewhere.

The next visit was made at the factory of the Samuel Peck Manufacturing Company, where are made a great many photographic goods. The well-known "Union" goods, cases, lockets, frames, &c., are made here. The material of which they are made is mixed by a patented process, and divided into tablets of proper size, which harden when exposed to air. When the workman is about to use them, he heats them in an oven until they become soft; they are then laid upon the face of a die, pressure applied, and lo! as if by magic, we are presented with a beautiful work of art in the shape of a case or frame. Apparatus of a cheaper grade is also largely made here, and the best of printing-frames, negative boxes, paper boxes, &c. One of the largest clock factories is also connected, and the whole establishment presents a most busy and prosperous scene. It is under the management of Mr. Carlos Smith, who is the Secretary and Treasurer, and Mr. W. Irving Adams (of Scovill Manufacturing Company), President, who were present, and showed us the kindest attention.

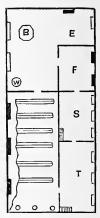
The evening we passed at Springfield, Mass., calling as usual upon Messrs. Moore Brothers, at whose studio all photographers are always welcome. This city always looked like a good place to hold the N. P. A. Convention.

The next day we passed on to Littleton, N. H., where, joining our good friend, Mr. B. W. Kilburn, we journeyed to the summit of Mount Washington, walking up from the base, with the railway as our guide. We were four nights upon the summit and parts of five days, as guests of Sergeants Thornett and Line, and Corporal De Rosher, who comprise the detachment of the United States Signal Corps, or "Old Probability's Brigade." The thermometer was 18° below zero, and the wind blowing seventy

miles an hour sometimes; but a gayer, jollier time one could hardly have. Our friends there gave us as warm a reception as the mercury would allow; and what with eating and sleeping and joking and laughing, and a tri-daily tramp and battle with the elements, we descended the mountain on the fifth day, with increased weight and better health. Such a journey we have before described, and want of space forbids us to repeat. The sights to be seen there are glorious, and the freedom from the cares and worries of business one feels there is also glorious. Mountain climbing has no rival as a preserver of health.

Returned to Littleton, we made an inspection of the new buildings of Messrs. Kilburn Brothers. Here we have an establish-

ment three stories and a loft high, 60 feet long and 36 feet wide, with a back building 25 x 36 feet, two stories high, wholly devoted to the manufacture of stereoscopic slides. We do not think it can be equalled anywhere for size; and, as to the quality of work made by the Kilburn Brothers, it is the best. work, and enterprise and promptness, have



built them this huge establishment, and they deserve all the success they have had or expect to get. The little drawings annexed will give a feeble idea of the convenient arrangement of the interior. It is all well lighted, there being twenty-seven windows on each side, and an equal proportion in the ends. The front room on the left of the first floor is devoted to the washing of prints. The water is brought from a spring at some 300 feet elevation into the tank W, and runs from it into the washing-troughs. At B is the steam-boiler, which supplies the engine E, and heats the building with steam. S is the room in which the paper is silvered, 20 feet square; F the fuming-room, and where the paper is cut as wanted; and T is the toning-room, 20 x 24 feet.

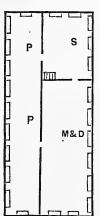
Figure 2 is a plan of the floor above. The entrance from the street is at E. The

R []
] P []
] S []
] []

business office is at O, and the finished stock and salesroom is at S. The room R is devoted to printing the titles on the mounts, and to rolling the pictures. The press used a double roller, the lower roll of which is hollow, and heated by steam passing through it constantly. It is such a novelty that we propose presently to devote a separate article to describing

it. P is a grand printing-room, 50 feet long and 15 feet wide, facing the south. Here is the liveliest room in the whole place, and a busy one.

Figure 3 represents the next floor above. M and D is the mounting and drying room.



S is devoted to the storage of card stock, paper, and materials; and P P is another grand printing-room, 60 feet long by 15 feet wide. It is a credit to American photography, and the American love for the stereoscope, that such an establishment as this is called for.

Littleton also has another new establishment also devoted to the stereoscope, Mr.

F. G. Weller being the proprietor. His rooms are very convenient and handsome. While he also publishes landscape views, his great specialty is his "Stereoscopic Treasures" or groups. In this he undoubtedly excels, and he is continually adding new subjects, and doing a most prosperous growing business.

We spent a day in Boston, also, calling upon good old friends there. The newest photographic sensation there is the splendid

establishment of Messrs. Allen & Rowell. It is reached by a steam elevator, and consists of two large skylights; one of them, a double one; the finest dark-room we ever saw; a splendid reception and art room, together with several tasty little dressing-rooms, where parties may be alone; a much better plan than having a single large room for the purpose. Then there are printing and finishing and artists' rooms, with every convenience, and a room devoted to carbon enlargements. We are promised a picture for our magazine from these gentlemen "soon," when we shall describe their splendid establishment more in detail.

In the evening we attended a meeting of the New England Photographic Association, at the studio of Mr. J. W. Black, and it was a real privilege to be there. About sixty members were present, and a report of the meeting will be found elsewhere. New England is full of good photographers, and the majority of them subscribe for the Philadelphia Photographer. Their Association is a credit to them, and we told them so. The best of feeling seems to prevail among them, and they work together for their mutual advancement, and thus set a good example to the trade in general.

PHOTOGRAPHY IN FRANCE.

It appears that the epidemic that attacks positive prints on paper, and which manifests itself by yellow spots, is now raging everywhere. Complaints are heard from all quarters, and in all countries the cause and the remedy are sought for. The question was discussed at the last meeting of the Photographic Society, and the information which was given there and then, seems to me worthy of very serious consideration.

Like many others, a provincial photographer attributed this accident to the Bristol board upon which he mounted his prints; he therefore returned, with many complaints, to Messrs. Rohaut & Hutinet, a sheet of the board furnished by them. These intelligent manufacturers took this sheet and pasted a print upon it; then after having cut it in two, they sent back one portion to their customer and kept the other. Two weeks afterwards the photographer returned the print full of spots; the

one they had kept had remained perfectly free from them, and is still so, as we have been enabled to judge with our own eyes.

Mr. Franck de Villecholle has stated a similar fact. Prints that underwent no change in his atelier, when transferred to the establishment of one of his co-workers, became covered with spots. After a careful investigation he learned that the latter had the tile floor of his laboratory washed every day. Mr. Franck had already remarked, that prints piled one on top of the other, before they were perfectly dry, soon began to spot.

It results from these divers observations, that the spots so much complained of everywhere, should be attributed to mould, produced by the fermentation of the paste under the influence of dampness.

The preventive remedy is easily found; it suffices to keep away from the atelier everything that produces or maintains dampness.

At the last meeting of the Syndical Chamber of Photography, Mr. Franck showed two paper positives printed from the same negative, but which greatly differed one from the other. The first was hard, with no half tints. The second was well modelled, soft and harmonious. The secret of this difference is in a very simple device. The skilful artist, who has adopted with advantage the system just proposed by Mr. Melchior to shorten the pose, and which consists in allowing the diffused light to penetrate into the camera before the exposure, conceived the idea of applying this process to printing positives.

Before placing the sheet of albumenized sensitized paper in the frame he exposes it for a few seconds to the light, just long enough for it to acquire a hardly visible tint; he then proceeds immediately to printing.

By this means he not only materially shortens the time of posing, but he obtains besides from hard negatives, which had always given very imperfect prints, excellent pictures, whose modelling leaves nothing to be desired.

Mr. Franck declares that this system gives him daily excellent results, in the event of his wishing to print more rapidly, or if he has to use negatives that are too hard.

One of the great objections to carbon photography, is the necessity of having re-

course to some means to turn the image, which is reversed from its natural position. A provincial photographer, who makes a specialty of this process, makes known to me the very simple method he uses to obtain negatives which give at once the images in their natural position.

He takes one of his dry plate-holders and removes the spring which holds the glass; he then fastens a small spiral spring at each angle of the closing shutter. He then prepares a plate, places it in the holder, the film side uppermost, and covers it with the shutter transformed as above; then he makes the pose. The light acts therefore through the glass upon the surface of the coating which is in contact with it. Thus is obtained a corrected negative. After a few experiments it is easy to determine the relation to establish between the ground glass plate destined to be focussed and the collodionized coating, and to focus exactly. The sharpness of the picture is equal to that of negatives obtained in the ordinary manner.

The author of this communication remarks, that in following the directions given by him, any one can alter a plateholder and adapt it to this new use.

It is understood that before putting the sensitized plate in the frame, it is indispensable to wipe carefully the reverse side, or what is better, to coat it with normal collodion before sensitizing. By this means will be avoided the presence of small drops from the sensitizing bath, which would produce upon the back of the plate, a refraction of the luminous rays and prevent the uniformity of the impression.

Mr. Thomas Sutton has recently made known a process which is now used by several carbon photographers, and by means of which, a negative may be obtained from another negative; consequently, a corrected negative. Here is substantially the mode of operating. Place under the negative to be reproduced a plate prepared with the bromized collodion for the dry process. The two plates are placed in the pressure-frame, which is exposed for a few seconds to the light; then the development is made by the alkaline process until a satisfactory negative by transparency is obtained; the plate is then plunged into a bath of nitric

acid, diluted with an equal volume of water. This solution dissolves all the reduced silver, and nothing remains in the plate but the non-reduced bromide of silver, which forms a negative image, very transparent, but very weak. To bring it to the desired tone, it is necessary to expose it again to the action of the light. When it has become sufficiently strong it is fixed by means of the hyposulphite.

It is easy to understand that by this method excellent reproductions may be obtained, not only in carbon photography, but for all purposes where a reversed negative may be necessary.

In my last letter I spoke of the lithographic process of Messrs. Hermagis & Geymet, and of the remarkable results obtained by them. Both of these gentlemen submitted to the Society of Photography, at the meeting of the 6th of March, new specimens, which show still further progress. Mr. Geymet brought the fac-simile of a manuscript embellished with numerous pen drawings, and containing more than 100 sheets in 8°, made entirely by his process, and he announced that commercially this work could be sold at fifty centimes (ten cents). He showed besides, a large number of photo-lithographic prints (views and portraits after nature), of the albumen card size. I send you inclosed one of these prints, and you can judge if I exaggerate when I say that these plates, printed by means of fatty ink, have all the qualities of pictures printed with the salts of silver.

You will agree with me that reduced to these dimensions they adapt themselves in the most complete manner to the illustrating of books by publishers.

The skilful chemist, Mr. Stebbing, makes known to me a very simple and effectual method of removing the spots which sometimes form on the negative after printing with the salts of silver. It suffices to plunge the negative into a dish containing a solution of ammonia at fifty per cent. and to lightly rub with a tuft of cotton the places which have been attacked, until the yellow spots disappear completely.

The annual publication for 1874 of the "Bureau des Longitudes," one of our most important bodies of scientists, has just come

out, and I find there a legitimate homage rendered to the work of your fellow-countryman, Mr. L. M. Rutherfurd. In a seientific notice upon the physical composition of the sun, which appears in this volume, Mr. Faye, our eminent astronomer, thus expresses himself: "Already, in America and in England, dealers supply numerous specimens of astronomical photography. In the first rank we must place the admirable photographs of the moon that Mr. Lewis M. Rutherfurd has published, on the scale of fifty-four centimetres for the diameter of the orb; those of the disk of the sun, which present with the same sharpness as the best glasses and with an effect quite as striking, the spots, the faculæ, the brilliant mottling of the surface of this orb; and those of the solar spectrum, whose lines have been registered by light itself with unswerving fidelity. It is high time that these marvels should be placed within reach of the French people." ERNEST LACAN.

SMITH'S COPYING BOARD.

I inclose a photograph of my copying board. I have used it for the past two years, and in copying find it all that can be desired. To the frame, or head-piece, is attached a cord, which runs in a groove un-

derneath the bed, and works with a thumb-screw at the end. You will see from the photograph the convenience of the headpiece; also, that it enables you to get the picture in position on the groundglass without removing your head from under the

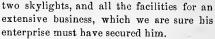


dark-cloth. The copying board will be appreciated by all photographers who have much copying to do, and will find it much more convenient than running about the room with hammer in hand and mouth full of tacks. Should you think it worth a place in your journal, you are welcome to it. It is not patented.

W. G. SMITH.

OUR PICTURE.

It is seldom we have an opportunity of illustrating the cosmopolitan character of our journal, and showing how far-reaching photography is, such as we have this month. We are happy in presenting a specimen of photography from Holland, as well as a representative of the fair sex in that far-off country. This picture brings to mind the impressions of schoolboy days received from the text-books in use, where scenes in Holland were represented with ice and snow, the people in odd-looking costumes, and travelling on skates or wooden shoes. But a picture like this conveys a different impression. We see that people in Holland are very much like people everywhere else; that we are all of one common family, with similar interests, tastes, and feelings. This picture, which will compare favorably with work from more favored localities, is from the studio of Mr. P. A. Mottu, of Amsterdam, who is the leading artist there, and is at the head of all photographic enterprises in that section. He is editor of the only photographic magazine published in Holland; also president of the Photographic Society of Amsterdam. He



We are indebted to the fair subject of this picture as well as to Mr. Mottu, and trust her example, in the interests of our art, may induce others to favor us in the same way.

Mr. Mottu gives us the sizes of his studios as follows: The largest 40 feet long by 20 feet wide; the other 48 feet long by 15 feet wide. He says: "My light is full north for the large studio, and west for the other. I can in the large one, at any hour of the day, work without hindrance from the sun, on three sides, right, left, and over the windows.

"My collodion is composed as follows:

No. 1.

Cotton,					12 g	ramme	S.
Absolut	е.	Alcohol	l, .		300		
Ether,			•	۰	400	4.4	

No. 2.

Absolute Alcohol,	300 gram	mes.
Iodide of Ammonium, .	8 '	•
Iodide of Cadmium, .	8 '	Ĺ
Bromide of Ammonium,	4 '	4
A few drops of distil	led water.	

"No. 2 is mixed with No. 1, and if the

pyroxylin is of good quality you can employ the collodion the following day.

"The sensitizing bath is the same as every one employs, 8 to 10 per cent. of silver, and acidified with nitric acid.

DEVELOPER.

Sulphate of Iron, . 30 grms.

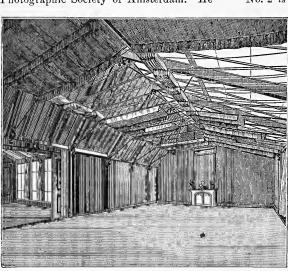
Water, . . . 1000 "

Acetic Acid, . . 10 "

Alcohol if wanted."

The prints in this issue, as well as those in the April number, were made by Mr. William H. Rhoads of this city, on paper by Marion & Co., of London, whose specialties are advertised in this

journal. This paper is much in use in London we found, and is "picked," so that it is guaranteed no imperfect sheets will be found in a ream.



has recently erected a new and elegant studio, of which he sends us some beautiful views, showing the interior construction, with furniture, accessories, &c. There are

CRYSTAL SELF-ACTING TABLE FOUNTAIN.

This is not a piece of photographic apparatus, but as an ornament for the waitingroom, or an accessory for certain styles of rustic pictures, it is not excelled by anything we have ever seen. "The principle on which it operates is the simple law of gravity. The inside of the pedestal forms a round tube, four inches in diameter, extending to the base. . . . In this a weighted valve moves up and down, like that of a pump. When raised up and allowed to descend by its own weight, it forces up all the water in the tube under it, through a small pipe to the jet, whence it falls again into the basin and keeps the water always at the same height."

In style and finish it is decidedly ornamental, as will be seen by the engraving.



It is in reality, a fountain and aquarium. The glass basin holds a gallon or more of water, which is kept in constant circulation by the action of the fountain, and in which gold-fish may be kept, and add much to the beauty of the arrangement. With small water-plants and vines trailing from the sides, with buds and blossoms gracefully arranged in the cups provided for them,

and kept watered by the pearly spray continually falling, it becomes a refreshing and attractive feature for the parlor, the drawing-room, or the sick-room; or even amid the dry routine of business, where things poetic or sentimental are seldom considered, this might refresh many a weary brain, and throw around an influence at once cheering and elevating. As we write, amid the grime and dust, as is generally supposed, of an editorial sanctum, one stands on our desk beside us, throwing up its little jet of crystal gems, and making the whole atmosphere seem fresh and fragrant, as our imagination supplies the vines and

blossoms that are only wanting to complete the picture.

This little candidate for public favor is gotten up at the works of the American Fountain Co., 50 Courtland Street, N. Y., who say that "every method that years of experience could suggest, has been adopted to make this fountain a success in every way;" and we think they have succeeded admirably. For particulars as to price, &c., we refer to our advertising pages.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

Carbon Printing by Continuation. — Photo Bas-relief.—Permanent Sensitive Paper.

Carbon Printing by Continuation .- I do not know to what extent carbon printing is now practiced in America. In this country, whilst not widely spread, it is steadily and extensively carried out in a few important establishments. In the government photographic establishments, for instance, it is almost exclusively employed. At the Royal Arsenal, Woolwich, where photography is used largely in connection with military purposes, it is employed, and the system of printing by continuation in the dark is found to be very successful, and of most vital service in dull weather, the results of a short exposure and few hours' repose being, as I think I once before mentioned, in every respect equal to those fully printed out in the light. During the winter months I learn that it has again been resorted to, the production of photographs connected with the Gold Coast Expedition necessitating pushing forward of the work. The tissue is exposed to light under a negative about three-fifths the time required to give a fully printed result, and the incipient picture is then put away in a box to be developed the next day. It was found that in bad, wintry weather, such as we have lately been having, only as many as six degrees were marked on the actinometer throughout the day -that is to say, the sensitive paper only colored deeply six times from morning till night-and this was, as a rule, barely sufficient to print two pigment pictures, the average negative requiring about three

tints, or rather more. Therefore, by only half-printing, or little more, the gain in time is very great, and half the number more pictures are got off than in the ordinary way of printing. This plan has been carried on at Woolwich for the past two months, and with great success. Some care is, of course, necessary to time exposures correctly, and not to overlook development when the proper period has clapsed; but no more failures are obtained by this method of printing than in the usual one. Another fact connected with carbon printing is worthy of record. When the Woolwich establishment first adopted carbon printing, several years ago, the usual run of negatives were much too dense for the work, and sometimes as many as twenty, and even fiveand-twenty, tints had to be recorded on the photometer before a negative was sufficiently printed. Since then it has always been an endeavor to get thin negatives, which give more vigorous prints in carbon than they do in silver, and now clichés are seldom taken at the establishment which require more than three or four tints, copies being printed from them in five or ten minutes.

Photo Bas-relief.—I have recently seen a curious novelty in portraiture which is very effective. It consists in a bas-relief on a photographic basis, or, perhaps, to be more accurate and precise, it is a photograph on a basis modelled in low relief. The examples I have seen are all of cabinet size, and consist of large bust portraits, both in profile, three-quarter, and full face, the firstnamed being, I think, most suitable and most effective. How the bas-relief is produced, whether dependent upon some ingenious process, or upon the personal skill of a modeller, I am unable to state. All that is necessary to the result is, that a plain paper print shall be forwarded to the artist, and this plain paper print is modelled into the due relief, the back being filled up with some plastic material. Some of your readers may be familiar with a similar kind of portrait in relief modelled in wax, and tinted in the colors of life. These photo-basreliefs are similar, but, instead of being colored, they are in the simple black and white of the photograph, which is much more severely artistic and satisfactory than

the tinted wax. A good photograph, perfectly indicating the modelling in the original, must, it is manifest, be a necessary aid in the production of these plastic portraits. In the examples I have seen every undulation in the contour of features, bosom, hair, and drapery, is admirably rendered, and the result is singularly pleasing. I hope shortly to be able to forward you an example of this novelty, and to give your readers any additional details of the method which I may be able to learn. If any of them possess a little skill in the sculptor's art, or any knowledge of modelling plastic materials, these hints may suggest experiments.

Permanent Sensitive Paper.—The subject of preparing sensitive paper with keeping qualities still receives attention in this country, whilst the two or three thoroughly successful methods, which are trade secrets, remain as secret as ever. A paper recently read by Mr. J. M. Turnbull gave some interesting experiences, and the following method is the best the writer has tried after many experiments. He says:

"I do not think paper by this method should be prepared to keep more than two to three months. The paper is first floated on the usual silver bath of from forty to sixty grains, and hung up to dry; when nearly dry, but not dry enough to curl up, it is floated on a bath, of citric acid five grains, water one ounce. It must not lie any time on this bath-just so long, and no longer, than that the paper may lay flat, when it is again hung up to dry. Such paper will keep white for some weeks. Should the paper be wanted to keep longer, it may be left longer on the bath, or the citric acid may be increased. Paper floated on the 5-grain solution tones as readily and gives as good finished prints as the ordinary paper."

Mosaics for 1874.—A week or two ago I received my copy of Mosaics for 1874. It is, if that be possible, better than ever. It is a somewhat supererogatory work for me to offer any meed of admiration, as by the time these lines reach your readers, I have no doubt every one of them has availed himself of his privilege of obtaining a copy and at once devouring its contents. Still I may be permitted to congratulate you and your readers on the great excellence of your annual.

THE PRIZE MEDAL AWARD.

THE competition for the gold medal which we offered closed on Saturday the 18th, and the award was made on Monday the 20th of April. There were thirty competitors in all, and the contest was sharp, as we had predicted. It has produced a higher grade of work than any similar competition has ever done for us before, and we feel great satisfaction in promising our readers a series of pictures for illustrating our magazine, for nearly a year to come, that will average far above those published in any one year before. We have more than realized our anticipations in offering the medal, and have fully accomplished the object we had in view, viz., to secure the best work that can be made for our illustra-But you all want to know who received the medal. The committee, consisting of three eminently practical men, Messrs. Wm. H. Rhoads, C. Alfred Garrett, and R. J. Chute, met in our office on Monday afternoon, and after a careful examination of all the competing negatives, were unanimous in awarding the medal to Messrs. Bradley & Rulofson, of San Francisco, and we are sure the judgment of all candid and cultivated minds will justify the decision they arrived at. There were six negatives of the same subject, from which the committee selected three for the award, though the relative quality of each was equally fine. The subject is a lady, with more than ordinary grace and beauty; the lighting and posing evince the highest order of artistic skill, and, chemically, the negatives combine softness with brilliancy, and are without spot or blemish. One conspicuous feature of them is the very slight retouching, showing clearly the pristine excellence of the work. We congratulate our friends on the Pacific coast on their success, and thank them heartily for their efforts to send us such elegant examples of their skill. While we see some work that is apparently imitative, and may be classed as resembling certain European styles, or certain work in this country, this seems to be a style of its own; purely American, we should say, and possessing such high artistic merit as to recommend it as a fit example for study or imitation. Indeed the same may be said of the work of a number of the other competitors. There were several that followed so closely on the successful ones, that had these been absent the committee would have found it difficult to have decided. We rejoice at this high degree of excellence, and congratulate all, both those who have so contributed the excellent results of their efforts, and those who will be benefited by studying their beautiful productions.

We shall publish prints, tastily mounted, from all the competing negatives, in order that our readers may have the opportunity to study them, and we commend them to all who wish to improve, and desire to have a high standard of excellence to guide them, as the best by far we have ever had the privilege of offering. By reference to our advertisement concerning them further particulars may be had.

Local Secretary Hesler's Appeal to the Photographers.

BROTHER photographers, not only of the N. P. A., but all who claim that name, East, West, North, South, old world and new, in behalf of the N. P. A. and our new city which has so recently, phænix-like, risen from its ashes, I invite you to come and see us in July next. Bring yourself, your wife, friends, and, above all, bring what you can of your best work to show us; and we, in return, will show you the most wonderful city the world has ever seen. Don't fear that you will be crowded for space to show your pictures; we have secured the best place for the purpose west of the Atlantic, and room enough to hold all the photographs in America, and a few besides. Bring not only portraits, but compositions of all kinds the art and your ingenuity can invent, and to you who do so will be the honor given by public approval. Our hotel accommodations are unsurpassed by any city in the world; all new, and furnished and fitted with an eye single to the comfort and convenience of the public who visit us. The charges will be moderate; as low if not lower than any other place where our conventions have been held, and for comfort nowhere surpassed I know the time is short for us to get ready to receive you, but we

will do what we can. You shall be all heartily welcome, and have the best place to exhibit your work and hold your meetings, and exhibit your lantern pictures, that you have ever had (all under one roof), near depots and hotels, and where you will have the cool breezes of Lake Michigan to fan you. I want to see five thousand at least of our fraternity here in July next, and we will show to this astonishing city what can be done in other parts of the world in the way of photographing.

Due notice will be given of the hotel rates, and all other necessary information. It is by attending these conventions and communing together that we educate ourselves in our art; and by exhibiting our work that we educate the people, and call their attention to what we are doing. Don't be afraid to bring and exhibit your work. It may not be as good as some, but it will, no doubt, have some good points, and by comparison you can the better see wherein you err, and thereby improve. And, too, by exhibiting you gain the confidence of your customers, that you are not ashamed or afraid to exhibit your work by the side of the best, and thus increase your business. So come and show yourself and your pictures, and you will not regret it.

A. HESLER,
Local Secretary N. P. A.

TO EXHIBITORS IN CHICAGO, July, 1874.

Notice to all who intend to exhibit (and I would be glad to see every photographer in the world exhibit something pertaining to our art), also all manufacturers and dealers, who want space: I would say, you can have all the room, either wall or floor, you want, but you must notify me as early as the first of June, and not later than the fifteenth of June, of the space in square feet you will want. And state whether for pictures in frames, apparatus, chemicals, or frames, &c., so the space can be provided for you. We make this request because we want all our space filled. Bare walls look badly, and it costs money to provide space, therefore we don't propose to go to the expense of providing it, if it will not be filled or occupied, yet we wish all that want it to have all the room necessary, and it will be but little trouble for you to say how many square feet of wall or floor you will need.

> A. HESLER, Local Secretary N. P. A.

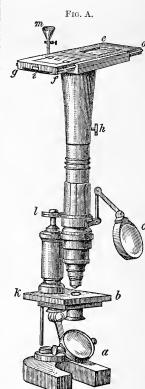
Post-office address, until further notice, Evanston, Ill.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.
V.

Some of the applications of Dr. Stein's heliopticor may interest you, and I take the liberty of explaining them here with illustrations.

Dr. Stein says: "To easily fix photographic pictures of the microscope, I combine my automatic holder with it by means of a conical wooden tube h, Fig. A, with the

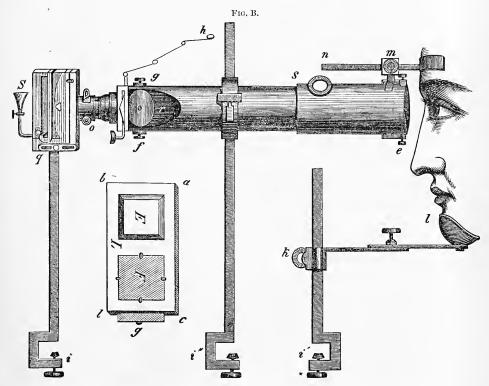


tube of a microscope. The objects placed at k, b, and arelighted, by the reflector, a, for transparent, and the lens, c, for opaque objects; at l is a micrometer-screw to focus the object; at h, one to raise and lower the heliopticor. In the frame, e, d, g, f, which is grooved, is contained the ground-glass and automatic holder. while the tube, h, f,takes place of the camera; at i

is the slide; at m, the funnel for pouring in the chemicals. These photographs can be taken in the night as well as in daylight. An artificial light (gns, photogène, petroleum), when properly concentrated and properly exposed, will answer as well; working at night dispenses with the use of the grooved frame, g, f, d, e, it being only necessary to place the holder on the conical tube.

"For the reproduction of the retina of the eye, I make use of an ophthalmoscope, which is constructed on the great Liebreich's principles. After the pupil of the eye to be photographed is sufficiently distended with the aid of atropia, the head of the person sitting is held by a rest, made for this purpose, l, Fig. B, and m, n; the back of the

instance, magnesium, are thrown by means of the reflector, r, through the tube, g, s, e, into the interior of the eye, light it up, and return by means of the lens at e; the rays reflecting will collect in the centre of the reflector, r, which is pierced like a diaphragm. Back of this reflector is the photographic tube, which is set on the heliopticor at q, p. To prevent the optical rays from blinding the eye, a piece of cobalt blue glass is inserted in the tube, e, g, f, which is taken out when focussing, which is generally done by candlelight. At s is an adjusting screw for enlarging the lens combination; at e, the



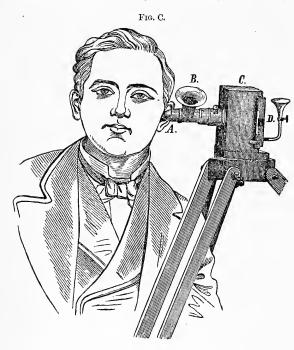
head is held by the ordinary head-rest, so that a firm stand is secured between three points. The system of tubes, e, s, g, f, as well as the helioptric camera, q, p, are screwed with strong iron bars, movable at i'', to the table, a, i. At r is the optical reflector, which can be moved in all directions by means of the screws g and f; also the biconvex lens at e, which is intended to neutralize all reflections of the cornea. The rays of light, for

micrometer-screw of the photographic objective q, p, of the heliopticor; at h, is an easily moved knob to fix the gaze of the eye to be photographed.

"The photographs of the retina made with my apparatus are about three centimetres in diameter; the entrance of the optic nerve as well as the distribution of the bloodvessels of the central artery of the eye, are photographed with ease. For taking diseased forms of the interior, this apparatus is especially adapted.

"The apparatus, Fig. C, for photographing the tympanum, consists of three parts:

1. The ear-funnel, A. 2. The lighting apparatus, B. 3. The photographic apparatus, C. These parts, as can be seen by the cut below,



are connected together. The apparatus is fastened with a spherical joint to a suitable stand, to enable it to be moved in the proper position towards the sun. The ear-funnel consists of a $1\frac{1}{2}$ lines long conical tube, which is pushed into the ear, to push aside the small hairs in the auditory passage, which would obstruct the picture. It is made of vulcanized rubber. The lighting apparatus, B, which is easily closed by the lid, a, c, consists of two metallic tubes soldered together at right angles, b, d, one being provided with parallel sides, the other with rounded sides. At the junction of the tubes is placed a pierced metallic reflector at an angle of 45° (e, g, f). The photographic apparatus, c, consists of a double objective of 12 lines (C) with a small camera of 2 lines depth, and heliopticor, ground-glass, and

holder are held by an easily movable rectangle, D. Between the objective and lighting apparatus is placed an enlarging planoconvex lens. The apparatus is used in the manner described in the cut, Fig. B. The lighting apparatus can be moved on its own axis, and in conjunction with the

spherical joint of the stand, can be moved to any desirable position with the greatest ease. The rays which penetrate the tube, a, b, c, d, are thrown by the reflector, e, f, in the direction, A, on the tympanum, the picture of which is then reflected back through the opening g, in the reflector, and lens combination, h, i, k, l, m, on the ground-glass o. The focussing is done partly by means of the adjusting screw, p, and the lens at h, according to the size of picture desired. During the photographic proceedings, the ear must be drawn back by an assistant to facilitate the inserting of the ear-funnel into the slightly curved auditory passage, thereby insuring a direct and straight line. The time of exposure, in good sunlight, and by using good bromo-iodized collodion, is half a

second; by ordinary daylight five to ten seconds. The opening and closing of the exposure is done at a, d."

This interesting apparatus is no doubt destined to be very useful in the sciences, and for that reason I give it so much space.

On page 470 of the last volume of this magazine, Dr. Vogel gives the American photographers who displayed their work at Vienna good words, and certainly it is more graceful for him to do it than for me. I have already spoken of the pleasure it gave me to feel that, although the number of American exhibitors was few, their work was unsurpassed. It was a matter of considerable interest to me to have this point decided as soon after I entered the Exposition as possible, and no doubt our friends Rocher and Kurtz and Anderson and Osler,

and other American photographers who were there, felt the same way. Our work was as good as the best, and therefore I need not proceed to describe in detail the beautiful results from the studios of those named by Dr. Vogel on the page alluded to. I was proud of my country's photography, and was never ashamed to call attention to it. It was a pleasure, too, to take my German friends to the American pictures, and when dissertating upon their good qualities, to be able also to give personal recollections of nearly all the men who made them and of their studios.

"Ahl" said a friend, "no wonder you make such beautiful work in America, beeause you have such excellent apparatus." This was said as he was busy examining the unrivalled construction of the boxes on exhibition from Seovill Manufacturing Company, New York, proprietors of the American Optical Company's works. Many of the little conveniences about these boxes, combining as they do to make up the greatest convenience the American photographer has, were new to my friend, and were carefully explained, to his delight. It is not out of place to say that I know that the result of their exhibition in Vienna has been orders for these boxes to go to Algiers, to Asia, to Prussia, and to Russia. If I may be proud of my friends, the photographers of America, surely they may be proud of the Ameriean Optical Company's apparatus, for nothing in the world excels it, if I may judge from the fine display of such goods from all parts of the Continent; and by the handsome award of the medal, which was secured from the managers of the great Vienna Exposition by Scovill Manufacturing Company.

Of lenses and optical instruments there was no end, including those made by the well-known Voigtlander, Ross, Steinheil, &c. The finest display, in many respects, was by the renowned French optician, Mons. J. Fleury Hermagis, who is an eminent photographer as well. His lenses are used by M. Adam Salomon, and I shall have more to say of both of these gentlemen and their productions when we come to our views in Paris.

Neither were our photographic magazines

forgotten, for in a prominent place among the scientific publications of America, appeared the familiar pages of the *Philadelphia Photographer*, where it won many friends and new subscribers. It is the only photographic magazine in the world each number of which is accompanied by a specimen photograph; and it contains more matter each month, too, than any of its contemporaries.

Now I have said enough about us, and with Dr. Vogel, let us look for awhile into the numberless art galleries. Oh! did mortal man ever expect to have such a feast? There was the utmost profusion of paintings of all classes and styles of subjects, and of the various schools and countries. could well spend a month among them and not see them all, so it was our only plan to select our favorites, and then to pore over them. The sculpture was also profuse and enchanting. If photographers could have resource to such collections as these how photography would advance! Yet, with all this gaudy display, the figure-painting which touched me the most was of a little dainty peasant miss, walking with slate under her arm to school; and of the statuary, a similar little girl playing with two kittens between her bare feet was most attractive. These are just my simple ideas.

I found that that hat was deluding some of the visitors into thinking that I was myself an artist. To take it off looked even more suspicious, and so I kept it on. In the act of doing this, one luckless hour, I was approached by a portly gentleman, who seemed very anxious for conversation, and who also wore a large hat. "Fine lot of paintings, sir," he said. "Fes," I answered. "Great variety; one could hardly fail to be able to make a collection." "True," I said. "Are you an artist, sir?" Working in that direction. "Oh! I am so glad. What school do you like the best?" Well, we are trying to raise a photographic school in America. I think I should like that the best. "Oh, heavens! that disgusting business? I hope you are not a photographer?" Well, no; that is, not now, -not at present. "I am so glad. I am a painter. I don't like any school much. The Italians only paint pictures of martyrs and madonnas. French are good on figures, but they are

too fond of the nude. They take the same naked woman and change her position a little,-just as I am told you Yankees change a word or two in your patent specifications, and then get a reissue, and sail as if under new colors, while in reality it is only the same old thing disguised,-and then call her 'Aurora,' or 'Fantasie,' or the 'Sky Nymph,' or the 'Muddled Mistress,' or something else; it grows monotonous does this style. The German home scenes and historical representations touch the very heart; and the Flemish, coming in between the French and the German, are tender and attractive. But then the English pictures, especially their landscapes, are the finest in



Thus this man's tongue ran on.

the world!" Thus this man's tongue ran on, until, finding no other way, I said: My friend, it is my usual dinner hour, with which I never allow anything to interfere, and we parted. When I went to pay for my dinner I found my pocket-book was gone, but it wasn't the one I earried anything in; and I think there was one man, with a talent for fine art and a large hat, disappointed.

It would be folly for me to attempt any description of what we saw in these great galleries. There will be just such a display in Philadelphia, in 1876, where I hope you will all see it. Meanwhile, study up your art principles, that you may have more capacity for enjoying the pictures and understanding them. Day after day we wandered among the great collections of beautiful things, clambering to the top of the dome, also, from which grand views were to be had in all directions. The Exhibition not being open in the evenings, we devoted them to music, our favorite being at the

Volksgarten, where Edward Strauss and his superb orchestra played "The Beautiful Blue Danube," as the muddy stream moved sluggishly through the city near by, and where "the beautiful Spanish flower-girls" from Vienna are too tedious to mention. The one was a rest after the other, and the world of people about us was a sight as wonderful as any, for we were among the people of all nations. Strauss did not forget to play "Yankee Doodle," and he and his did it full justice.

There are many strange customs in Vienna, and one is always on the alert for surprises. For example: You arise in the morning at such an hour as your inclination dictates. While you are doing that which in early youth you were taught to do, i. e., dressing yourself, the door opens, a tremen-



A tremendous damsel enters without ceremony.

dous damsel enters without ceremony, seizes your boots and—the fright is over—and she takes them away. Even this is shocking enough to the nerves of a man away from home, but he must be prepared for anything, as I learned when the boots



Women have their rights in Vienna.

came back. Another and younger maiden brought them, nicely polished, and when giving her the usual fee, if it was you, man or woman, she would seize your hand and kiss it, as a token of her gratitude. Women have their rights

in Vienna, and if they don't they take them.

A roam about the city teaches one a great deal and gives one an opportunity of witnessing some strange and ludierous sights. The churches, which are all museums of sculpture and painting, were not neglected by us. Old St Stephens, with its 349 feet of length, its steeple 443 feet high, and its old walls, which have stood since A.D. 1258, gave us a treat I shall not soon forget, for besides the works of art it contains, mass was being held, and a thousand people were in attendance, consisting of all grades of society, from the picturesque peasantry to princes and princesses. Old and young were there-soldiers, draymen, elegantly dressed ladies and roughly elad country people, all worshipping together, while here and there among the great aisles were just such groups as ages ago inspired the pencils of Raffaelle, Rembrandt, and other of the old masters, in abundance. Of beggars there was a whole army, who failed not to suspend praying to ask alms of the passing stranger. I found my big hat was a protection in such cases, for I was taken for a native! I sighed for a camera and a good light to capture some of the life pictures there before me. What a contrast to the eighteen massive solemn columns, each nine feet in diameter, which, standing erect, had supported the nave, and opened niches in their sides to accommodate the hundred stiff, cold statues which have stood there for century upon century. At the old Augustine Church, we saw that master work of the great Canova, the tomb of the Archduchess Christine. How sublime it is. It consists of a pyramid of marble over thirty feet high, in the face of which is an opening apparently into a vault. Approaching this is a figure of Virtue carrying a vase containing the ashes of the deceased. Two little girls earrying torches attend her, and behind them comes Benevolence supporting an old man bowed down with grief. A little sorrowing child accompanies him. On the opposite side is a crouching lion, on which reclines a mourning genius. The whole is a magnificent and justly famed work of art. Here we saw also silver urns with royal hearts in them; dressed skeletons and grinning skulls enough to make us glad to get into fresh air again.

At the museum we had a rare treat in a collection of old paintings belonging to a private party; some of them were very eurious.

I had intended to tell you more of the status of photography in Vienna in this letter, but space will not allow, and it must lay over until next month.

How to avoid Unnecessary Waste of Time and Silver.

BY E. Z. WEBSTER.

No. 2.

In my first paper I endeavored to impress upon the minds of my brother photographers the value and importance of saving time.

We will now proceed to the next and main subject under consideration, i. e., the unnecessary waste of silver, and how to avoid it; and as the making of the negative is the *first* use, *there* is the proper place to commence the *saving* of silver.

Although I do not propose to teach the art, or to criticize the pet formulæ or processes of my brother photographers, still I must give my own views upon all points bearing upon the subject under consideration; and while I would not arrogate to myself one tithe of the knowledge possessed by the many great and brilliant exponents of our beautiful art, still I believe there are scores of operators who have not yet "learned everything," and some things which I have learned may be of use to them.

One thing I have learned is this, viz., it don't pay to be everlastingly at war with your negative bath; and any man who tries to make his bath work all sorts of collodion, all sorts of developers, acids, alkalies, dirty plates, and everything else, will always be in a chronic state of perspiration and uncertainty, not to mention the immense amount of silver and other materials wasted.

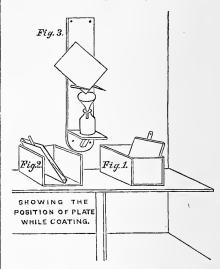
A good forty-grain bath is the most reliable and best adapted to the various commercial collodions in the market; and, unless you are an adept, I would not advise you

to confine yourself to "home-made" collodion.

See that every plate is absolutely clean upon the back and edges, and chemically pure upon the front, and free from dust when it goes into the bath, for dirty plates are an abomination, they spoil the picture, sour the temper, soil the bath, and disgust the sitter. Try to reduce your negative process down to the utmost certainty, by careful attention to every detail of preparation, and then watch every shade of ehemical change, thereby enabling you to nip disaster in the bud. The making of the negative is the most critical and the most important part in the photographic process. Volumes have been written upon the subject, and yet there is no one accepted rule or standard formula; but I will take it for granted that you know all about it.

Every operator knows that the negative solution must be free from all floating partieles, as well as from chemical impurities. There are various means of remedying the latter, while the former must generally be filtered out; consequently, some operators are always filtering their bath, and the unnecessary waste of silver by so doing is surprising; the filters absorb large quantities of silver, to say nothing of the slops which seem almost unavoidable.

I weighed a new nine-inch filtering-paper, and then filtered the bath solution which I had been using, containing about one gallon. The filter before using weighed about 100 grains; the same filter weighed when wet, and had stopped dripping, 306 grains, and, when thoroughly dry again, it weighed 180 grains; another filter just like it, which was used immediately after, weighed 150 grains when dry; while some old filters, which have come under my observation, were very much heavier; of course, the larger the filter, the more solution is absorbed. The use of eotton may be more economical, still there will be great loss. And then, again, it is not always convenient to stop to filter. Now, if you will take a box of a suitable size, minus a top, and set your bath into it (see Fig. 1), and, just as soon as your plate is dipped, tip it (the bath) forward (see Fig. 2), and let it remain in that position until you are ready to remove it to the plateholder, you will be astonished to see how free from pinholes your negative will be,



and it will save you an immense amount of filtering. I have been practicing this plan for many years, and am surprised that so few operators have adopted it. This box may be filled with warm water in cold, and with ice-water in hot weather, thereby securing a more uniform temperature of the solution. Much solution is allowed to drip upon the floor, and elsewhere, by unnecessary haste or carelessness in removing the plate from the bath. Of course there are times, and very often, when it is necessary "to push things," and then "quick" is the word, "hurry up the plate." Don't stop for the drip, but, if you are working large plates, it will pay you to fix up an arrangement like the one represented in Fig. 3, which should be fastened to the wall of the dark-room at the proper height, and as close to your bath as possible, so as to avoid the waste of solution while passing the plate to position. While the plate is draining, you can get your plate-holder all in readiness, or coat and dip another plate, &e., and the silver which is saved is all ready to use again. It does not require refining, and is not subject to a royalty grab, nor does the silver which can be saved by following the suggestions contained in this series of papers. The main object to be

kept in mind must be to retain the silver in the original, or some other workable form, by the simplest and most economical plan; and I will guarantee that the amount of silver which can be saved by a systematic routine of avoiding unnecessary waste will be twice as great, and no more troublesome, than the endeavor to regain your contaminated silver by sending it to the miller, who keeps the grist and sends you the toll.

(To be continued.)

GERMAN CORRESPONDENCE.

Solution of the Problem of Reproducing Negatives—New Photographic Spectroscopical Observations.

To-DAY I am in the position to report on one of the most important and interesting of discoveries. A problem of great importance for practical photography has been solved, i. e., the reproduction of negatives. You will, perhaps, state that this is nothing new; and I remark, that I, as well as others, have frequently reproduced negatives; but if any one has ever obtained a negative which is exactly like the original, possessing the same sharpness, softness, and harmony, I doubt very much. Even when we do not take slight variations into account, there has hardly a negative been made which could completely replace the original. The reason is, probably, that for the production of the negative two processes are necessary; first, the production of the positive, and next, the negative No matter if we work with chloride of silver, or with the camera, something always is lost. The relation of light and shade becomes deranged already in the positive, and when we take a negative from the positive new differences will occur, and the consequence is that, as a rule, the negative differs considerably from the positive.

Obernetter has solved the problem of making a negative by employing a process which requires a single copying process only, i. e., he makes from a negative another negative. He employs the dust process of Poitevin. This process was improved by Obernetter and Zeubert, and formerly employed for making porcelain pictures. A

glass plate is coated with a film of gum, grape-sugar, and chromate of potash. This film, when dry, is somewhat sticky; so much so that a pigment powder when dusted over it adheres to it. The action of light destroys this stickiness, and when the film has been exposed under a positive, only the places which have been covered by the opaque parts will retain their stickiness.

If, now, after exposure a powder is dusted over it, it will adhere only to the parts which have not been exposed to light, and in this way we obtain a positive from a positive; of course a negative will yield a negative. Obernetter himself has practiced this process for years with the best success, and transmitted lately to the Berlin Photographic Association a number of reproduced negatives, together with the originals. The former were such exact copies that only a skilled eye could detect the difference. Obernetter makes it a business to reproduce negatives, and has, in fact, made excellent work for Loescher & Petsch here. The process is for him of special interest in his "Lichtdruck" establishment, where he has to work with reversed negatives, in order that the resulting pictures may appear in the proper position. Formerly it was customary to detach the film from the glass, and to reverse it, but now Obernetter is, by the above-mentioned process, enabled to make a reversed negative, because the reproduced negative is already reversed, and can therefore be used for the "Lichtdruck "directly. When a negative is desired in which the position is not reversed, we pour collodion over the dusted film, and after it has dried we place the plate in water; the film soon becomes detached from the glass, and the film, with the picture, can easily be reversed, and placed on glass.

At first sight it looks as if plate-glass was only suitable for this purpose, but this is not so. Obernetter has copied curved negatives by this process, and it is not at all difficult. He uses mica plates for the purpose, which he coats with the sensitive composition. These conform to the curved plates, and after the picture has been detached it is readily transferred to glass. Obernetter has already reproduced two thousand negatives for the "Lichtdruck"

up to a size of two feet. Another advantage is, that by regulating the exposure, we have it in our power to change a hard negative into a soft one, or a weak one into a brilliant one. Obernetter sent me original negatives and copies, and it is a fact, that the reproduced negatives give finer results than the original. The Vienna Society has awarded to the inventor the golden Voigtlander medal. He has published his method of working, which is as follows:

The above materials, after being dissolved, are filtered, and a newly-polished piece of plate-glass is coated with it; the excess is poured off from one corner, and the plate is put aside to dry. If the plate is put into a drying-oven, in which the temperature is from 122-160 degrees F., the film will be dry in from five to ten minutes; the film is exposed under the negative to diffused daylight while still warm. The exposure lasts for about five to fifteen minutes, according to the density of the negative; when the picture becomes faintly visible the exposure is right. After exposure the plate is placed again in the dryingoven until it is a little warmer than the air of the room in which the picture is to be developed. The development should take place in a room not too light. The plate is placed upon a piece of white paper, a brush is placed in levigated plumbago, and the plate is carefully brushed with it; by breathing on the plate it takes the plumbago more readily (the operation is somewhat tedious for the beginner, particularly when the plate has been somewhat overexposed, besides, the plumbago-dust makes one look like a chimney-sweep). When the requisite density has been obtained the plate is dusted off and coated with a plain collodion, containing two per cent. of cotton; when dry a sharp knife is passed around the margin, and the plate is placed in water. The film is, after two or three minutes, easily detached from the plate, and may be reversed and floated on a plate of glass. The plate

is washed under a gentle stream of water, in order to remove air-bubbles which possibly may have formed, and, finally, solution of gum (2 parts gum to 100 of water) is poured over it, and the plate is left to dry, spontaneously, and in a vertical position.

Obernetter regulates the proportion of glycerin according to the humidity of the atmosphere. When the air is damp and warm no glycerin is necessary, but when the air is cold and dry the addition of glycerin is advantageous. In America, where the air is dry, the addition of glycerin is in most cases to be recommended.

The plumbago plays a very important The best is the genuine Siberian, finely precipitated. It is to be had of the celebrated Faber, at Stein, near Nuremberg. Obernetter states that it is easy to guess the time of exposure. Plates which have been exposed too short a time become veiled, while the result of overexposure is a hard picture. I must remark, that guessing at the time of exposure is a rather risky operation. I have repeatedly made experiments, but always in vain; finally I resorted to the photometer, and succeeded admirably. With thin plates I copied to fifteen degrees; with dense ones to sixteen degrees; and this enables one to be entirely independent of the weather.

I have written to you in a former letter about my experiments with the solar spectrum. I have continued these experiments, and have obtained some very original results, which overthrow all that we have known until now about the sensitiveness for spectral colors of iodide, bromide, and chloride of silver.

Schultz-Sellack, who examined them four years ago, stated that only the ultra-violet, violet, and blue, affected pure iodide, bromide, or chloride of silver chemically. When we count from the ultra-violet, the sensitiveness of the chloride of silver ceases in violet, that of iodide of silver in indigo, and the action on bromide of silver extends to blue; so states Schultz-Sellack.

That these assertions do not answer for bromide of silver I have already reported. Bromide of silver is, in fact, affected as far as the red. That Schultz-Sellack noticed an effect only as far as blue, is explained by his using a spectrum very feeble in light, and too short an exposure. After having tried bromide of silver, I took chloride and iodide of silver, both in the dry state; these also showed a sensitiveness for all the colors of the spectrum up to red, and this sensitiveness can be modified by adding pigments. A very curious result I obtained with colored chloride of silver. I gave to it a red color by means of naphthalin red, and obtained a plate which was the most sensitive for yellow, so much so, that this color affected the plate more strongly than blue.

When we test such a chloride of silvercollodion for yellow color, we are apt to believe that this would act with more force than blue, but this is not the case; this fact appears strange, but is easily explained. The yellow of the solar spectrum is about a hundred times brighter than the violet, while, in painted colors, the yellow is at most only ten times more brilliant than ultramarine blue; in many cases it is only four to five times brighter, and hence its action will be from ten to twenty times more feeble than the spectrum, and, under these circumstances, not exceed the action of the blue. To this we have to add another circumstance. In our work direct sunlight is excluded; our objects are, therefore, illuminated by the blue sky, and blue is the predominant color. It becomes necessary to resort to other means in order to overcome this difficulty. I shall write about this in a future letter.

It is strange how the action of the solar spectrum fluctuates. Formerly the solar spectrum was considered as something constant; but already my first experiment proved to me that constancy is out of the question. Although I experimented only when the sky was perfectly clear; although I took into consideration the sun's altitude, I soon observed that the action sometimes extended far towards the violet, at others to the red. I have had days when violet affected bromide of silver hardly at all, and at others very strongly. The cause of these variations is doubtless the different transparency for color in the atmosphere; sometimes the violet, sometimes another color is more strongly absorbed.

In conclusion, a remark about Mr. Carey Lea's article in the British Journal of Photography. He has repeated my experiments with colored collodion; but, instead of employing the solar spectrum, he used an artificial one, which he made of colored strips of glass. I will here state that such a spectrum can never yield the same results as a solar one, for the simple reason that the colors are not pure. A cobalt glass permits, besides the blue rays, considerable red light to pass; through yellow glass green, red, and some blue passes, besides yellow. Pieces of glass, which have been colored red with a rose-anilin varnish, allow a considerable quantity of blue light to pass through them besides red. If we expose a film under such a plate, and we should get an impression, who is able to say if it is the result of the action of red or of blue light? Similar results are produced by pigments. If we paint a spectrum with alizarin red, Naples yellow, and indigo, and take a photograph of it, we will find that the red has impressed the plate the strongest, and the blue the least; just the reverse of the action of the true solar spectrum. If therefore Mr. Lea obtained under his colored glasses different results from those which I obtained with the solar spectrum, the fact does not surprise me at all.

Yours very truly, Dr. H. Vogel.

A NEW POCKET-ALBUM.

WE have long seen and felt the necessity for some convenient method of mounting and protecting photographs, so that they may be carried in the pocket and readily examined.

The device we herewith illustrate is intended to supply this want. It is a cover with expanding back, so that from six to twenty-four pictures may be inserted. They are made all sizes, from card to 8×10 . The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover. Fig. 1 represents the cover, with the perforations in the back,

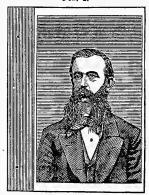
through which spreading clasps bind the whole together. These are so easily in-

FIG. 1.



serted or removed, that pictures are readily put in or taken out at any time. Fig. 2

FIG. 2.



represents the picture, with the guard pasted on ready for insertion.

The arrangement is simple, and we are sure will be readily comprehended. We know there are many photographers and others who often want to carry with them a few choice specimens, either for study or exhibition, whose case this article will meet exactly. The real and first object of them, however, is to enable photographers to publish local or other views, and sell them, neatly done up in these covers. Or it may be portraits of a club or class, or any other thing, where a cheap binding is needed for holding and preserving several pictures to-

gether. They are manufactured and sold by Benerman & Wilson, to whom all orders may be addressed. See advertising department.

SOCIETY GOSSIP.

PHILADELPHIA (Philada.).—The President exhibited a print showing the crystal-line structure of a sheet of mica, this latter having been placed in direct contact with the sensitive paper in the printing-frame. The President also exhibited some outdoor views made with a Dallmeyer rapid rectilinear lens.

Mr. Carbutt called the attention of the Society to two presentation prints which accompanied the last number of the Bulletin de la Société Française. Mr. Carbutt said that these prints might be considered fine specimens of the process known as Rousselon's improved photo-engraving process, in which, while Mr. Rousselon had undoubtedly introduced many improvements, still the original idea must be acknowledged as Mr. Woodbury's. Mr. Carbutt then said that in these processes, a gelatin relief, containing fine emery, or some similar substance to give a grain, was first printed from the negative and mounted on a zinc plate; that it was then pressed either into soft metal, afterwards electrotyped in copper, or into wax, afterwards faced with steel; the mould thus obtained being inked and printed from in the usual way. Mr. Carbutt said that the process was probably an expensive one to work, but that it produced results of unequalled beauty, as could be seen by an inspection of the prints now before the Society; and he moved that they be framed and hung on the walls.

Mr. Sartain, in seconding the motion, said that no hand engraving could possibly compare in delicacy with the proofs exhibited.

Boston Photographic Association.— Committee on Stereo Camera reported no claim had been presented that would justify them in making a disposal of said camera.

Mr. Foss presented to the members of the Association samples of his retouching powder and the way to procure it, viz., sift coal ashes, then wash two or three times, saving the portion poured off, let dry, and it is ready for use. Also his method for mounting prints on glass: Flow your plate with thick albumen and let it dry, then pour on a few drops of albumen and lay the paper on, commencing at one corner the same as in silvering, and let the surplus drain off.

Mr. Edward L. Wilson, of Philadelphia, was present, was introduced, and made a very interesting address, at the conclusion of which he was greeted with applause.

Messrs. Southworth, Rowell, and Bowers also made a few remarks concerning the National Association Exhibition, &c., after which Mr. Wilson was introduced individually to the members present.

On motion of Mr. Smith, Mr. Wilson was unanimously elected an honorary member.

Mr. C. F. Richardson read a paper on "Durable or Permanent Sensitive Paper."*

Mr. Stevens told how he prepared his retouching varnish, viz.: To one ounce of common varnish, add one teaspoonful of water, shake, and the precipitate will dissolve and it is ready for use.

PENNSYLVANIA (Philadelphia), April 20th.—Met at the rooms of the American Photo-Relief Printing Company, J. Carbutt, Superintendent.

The medal for the best pictures of a lady and gentleman was awarded to Henry F. Smith.

A letter was read from Mr. Shaw, in answer to the inquiry the Secretary was directed to make at the last meeting, in reference to the work entitled "Regnault's Chemistry." Mr. Shaw said, "he believed it had been introduced in every case ever tried against his patent." Mr. Clemons said he had examined the several cases that had been tried, and could find no reference to "Regnault's Chemistry" being used, and thought Mr. Shaw's answer was not satisfactory.

Mr. Wilson exhibited a collection of cabinet pictures which he had received in competition for the gold medal he offered through the *Philadelphia Photographer*.

Among them were the magnificent pictures by Bradley & Rulofson, of San Francisco, to whom the medal was awarded. The inspection of such work was a rare treat, and was much enjoyed by the members present. Among them was one set of pictures made entirely by a lady, posing, lighting, chemical work and all,—Mrs. E. N. Lockwood, Ripon, Wis.

The President gave notice that a medal was to be given for the best print, and those who wished to compete could procure the negatives from the Treasurer.

On motion of Mr. Wilson, Messrs. Mc-Cormick, Smith, and Krips, were appointed a committee to examine the prize pictures he had exhibited, and fix upon a standard which should govern all offering pictures for competition in the Association. That no medal be awarded to any that were not as good as the one to be selected by the committee. One of the pictures by Mr. J. Barhydt, of Rochester, N. Y., was chosen.

Also voted that hereafter, in the pictures for competition, retouching, or any legitimate means for improving the work, be allowed, that will produce the best possible results; and that the subject and style of the picture be left entirely at the option of the competitor.

At the close of the meeting, Mr. Carbutt entertained the members with a fine lantern exhibition, and also showed them some of the workings of the photo-relief process.

Indiana.—The Secretary of the Photographic Society at Indianapolis says:

"The last two regular monthly meetings of the Indianapolis Photographic Association were among the most interesting ones that the Society has ever had; but, owing to the fact that they owed their interest largely to illustrations accompanying the discussions, which of course cannot be given in the *Photographer*, I shall not attempt to inflict the 'minutes' upon your readers, but merely ask you to say to them that the Indianapolis Photographic Association 'is still alive and kicking.' The subjects discussed were respectively 'Lighting and Posing,' and 'Printing and Toning.''

A NEW Association.—There seems to be an arousing among the photographers of

Brooklyn and New England, to a sense of their interests in the matter of the so-called "Shaw Silver-saving Process." We have been banging at their doors and rattling at their latches until we had to turn away in despair, unable to think otherwise than that they were all asleep. They are now awake, although we fear it is not doing them much good.

In Brooklyn, New York, "an indignation meeting" was held recently, and a series of resolutions were adopted. The publication of them in a daily paper has, we understand, caused Mr. Shaw to sue those whose names were attached to them, for libel, and we believe cross-suits have been instituted against Mr. Shaw. We cannot say more as to this until we learn more of the facts, except to add that it is a penal offence in the eyes of the United States law for parties to combine against a patent. It is not the right way.

Next we have an invitation eard to a meeting of the "photographers of New York, Brooklyn, Providence, Hartford, Norwich, and other places, to devise ways and means to protect ourselves against the demands of Shaw, and his patent silversaving process."

This meeting was held, and the following officers elected: J K. Bundy, New Haven, President; E. T. Whitney, Norwalk, Vice-President; D. P. Ramsdell, New Haven, Secretary; F. W. Burwell, New Haven, Treasurer. A companion association is about to be organized in Brooklyn we understand. We have no official particulars from either body.

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues.

All remittances of back dues, and fees and dues for new members, should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia. Life Member received in April, David Ginter, Conneautville, Pa.

It will be seen by reference to the proceedings of the Executive Committee that the fees for life membership are to be raised, and we would suggest to photographers the expediency of coming in now.

Contributions to the Debt Fund:

Continuous to the Deet 1 and.			
Heretofore acknowledged,		\$431	40
E. H. Train, Helena, Montana, .		5	00
E. R. Curtiss, Madison, Wis., .		3	00
J. Paul Martin, Boone, Iowa, .		-	00
W. V. Ranger, Syracuse, N. Y., .		3	00
J. H. Samson, Portland, Maine, .			00
Cramer, Gross & Co., St. Louis, Mo.,	٠	5	00

\$453 40

Regulations for Exhibitors and Members, next month.

Pay your dues! Do.

To Frame Manufacturers.—Referring to the article on page 46 of our February issue by Mr. C. D. Mosher, headed "A Good Suggestion," we would say that an effort is under way to carry out the project proposed there by Mr. Mosher. The money necessary for the premiums must be raised by private subscription, and all parties favoring it are requested to confer with Mr. C. D. Mosher, 951 Wabash Avenue, Chicago. Further particulars next month.

Get your best work ready to exhibit at Chicago.

PROCEEDINGS

OF THE

Executive Committee of the N. P. A.

A MEETING of the Executive Committee was held at the office of the *Philadelphia Photographer* on Wednesday, April 22d. Present, Messrs. W. Irving Adams, chairman, A. Bogardus, A. Moore, William H. Rhoads, and Edward L. Wilson, Secretary.

Letters from Local Secretary Hesler were read, concerning the coming Exhibition and Convention at Chicago; and Messrs. Bogardus and Wilson announced, that agreeably to an invitation extended to them, they would visit Chicago early in May, in order to arrange with Mr. Hesler and the Chicago and Western photographers for making the coming Exhibition the most brilliant and successful one ever held.

Resolutions were passed by this committee, pertaining to the Exhibition, which it

is thought will insure a brilliant affair, and give photography such a push forward as it has never had.

It will incur unusual expense to carry out the plans proposed, but the Executive Committee undertake them, believing that the members of the Association will sustain them, by paying their dues and making such contributions as they can afford, now, during the month of May.

The regulations for exhibitors, members, &e., will be published next month in full; and the usual circular giving railway arrangements, &c., will follow.

EDWARD L. WILSON, Secretary.

Editor's Table.

THE SHAW PATENT REISSUES.—In some way or other we learn that we have created the impression that there have been five reissues of Mr. Shaw's patent, while the real fact is that there have been four only. The original issue, and four reissues, is what we meant when we said five. Please take notice.

Look out for Him.—Mr. W. M. Lockwood informs us that "a man by the name of L. Felton, alias La Felton, alias L. Felong, alias L. Bierstadt, claims to have patented an 'Adjustable Screen' for the transmission of yellow light, and is now selling his screens in California."

Mr. Lockwood says that said Felong, with bis numerous aliases, has no patent, but "stole the design" from him, as he was the originator of the idea, as published in the Philadelphia Photographer for October, 1873, under the head of "Photometry of Colors."

MR. WALTER C. NORTH informs us that he has sold his gallery to Mr. Wilhelm Fritz, and does not intend to go into business again at present, but will be open to a good engagement where good work is wanted. Mr. North would be a valuable acquisition to any gallery that could secure his services.

CINCINNATI INDUSTRIAL EXPOSITION for 1874 will open on Wednesday, September 2d, and continue until Saturday, October 3d. It promises to be the largest exposition ever held in the United States. We call the attention of photographers to it, and trust they will not be backward in seeing that the photographic art is well represented there.

THE FRANKLIN INSTITUTE will celebrate the fiftieth year of its foundation by an exhibition of arts and manufactures, to be held in the city of Philadelphia, from the 6th to the 31st of October, 1874. A cordial invitation is extended to all artisans, mechanics, manufacturers, &c.,

throughout the United States, to contribute their best productions, and compete for the prizes. This exhibition is intended to show the progress of the past fifty years, and nothing would be more fitting than a fine display of photographs. For the photographers in the Atlantic States, particularly, this will doubtless be the best opportunity for an exhibition of some of their best work that will occur during the year after Chicago.

MESSRS. A. A. HICKOX & Co., of San Francisco, send us a quarterly Price List, which will be useful to photographers on the Pacific. They have established a factory for the manufacture of gilt frames of all descriptions. They are well stocked with the best materials, including the American Optical Company's goods. They are also sole proprietors of "Sheriff's Universal Camera-Stand."

"What we owe to Patents" is the title of a pamphlet by Mr. H. Howson of this city. Mr. Howson did good service for the fraternity in the Bromide Patent contest, and is one of the best patent lawyers in the country. His pamphlet is full of useful information to inventors and others interested in this direction.

Success of a Philadelphia Artist.—As we predicted, a majority of the prizes offered by Mr. Edward Anthony, of New York, were won by subscribers to the *Philadelphia Photographer*; and two of them, we are happy to say, came to this city, being awarded to Mr. F. Gutekunst for the best head of a boy under six years old, and the best head of a girl under six years old. They are superb specimens of photography, and an honor to the artist who produced them. While we confess the gratification of a feeling of local pride in this matter, we also congratulate our enterprising townsman on his maintenance of the high reputation he has so long enjoyed.

WE have before us the "Annual of the Syra-

cuse University, of Syracuse, N. Y., for 1873-74." In connection with this institution is a "College of Fine Arts," in which photography is taught as one of its regular studies. A photographic studio is soon to be provided, furnished with all the latest improvements in the art. Ward V. Ranger, a member of the N. P. A., is Professor of Drawing and Professor of Photography. We are glad to call attention to this recognition of our art, and hope it will not be long before such institutions will be multiplied all over the land.

On our recent trip to New England, we had the pleasure of being present at the April meeting of the Boston Photographic Association. Among other matters of interest, Mr. T. R. Burnham exhibited some very fine large heads from direct negatives. Mr. Burnham will be remembered as winning the \$50 prize we offered several years ago.

Fires.—We regret to learn that the galleries of W. J. Rawlins & Co., Wooster, Ohio, and G. K. Sherman, Elgin, Ill., were destroyed by fire on Monday morning, March 25th. That of Rawlins & Co. was a new gallery, and said to be one of the most complete in the State. Mr. Sherman says his loss is about \$1000 above his insurance, but "will be at work again in a few days." Also Mr. Well. G. Singhi, Bingham, N. Y., we are sorry to learn has suffered a similar misfortune, his gallery being completely burned on Saturday, April 18th, 1874.

MESSRS. L. M. MELANDER & BROTHER have opened a new gallery at No. 88 North Clark Street, Chicago. We wish them success.

GRISWOLD'S COMPOSITIONS should not be overlooked by our readers. Any one can sell them.

All should study them, for it is our belief that any one pushing this style of picture, either for the album or the stereoscope, will make them pay. A catalogue of them is given in the advertising pages.

MESSES. SMITH & COURTNEY, of Canton, Ohio, present us their compliments in a very neat circular, from which we learn that they have formed a copartnership for the practice of photography in all its branches, and invite their friends and the public to an inspection of their work. They have our best wishes.

We know how to sympathize with those who suffer from fire or water, and call attention to our advertised list of books by the wet process.

WE have on our table a finely-printed Cata-

logue and Price List from Mr. Romain Talbot of Berlin. It contains a sample sheet of his albumen paper.

We have samples of their work from Messrs. Lon M. Neely, Muncie, Ind., and from Mr. J. B. Medlar, Racine, Wis., all showing good progress.

PICTURES RECEIVED .- From R. Benecke, St. Louis, a fine lot of views on the Kansas Pacific Railway, 8 x 10 size; also one mammoth of the new bridge at St. Louis. A number of fine genre pictures, stereos, from F. G. Weller, Littleton, N. H. These are mostly familiar scenes, representing children's sports, and are gotten up with a good deal of taste and feeling. A lot of fine stereos from Charles Pollock, Boston, being a series of views in Florida, photographed by C. Seaver. Some fine cabinets from Bushby & Hart, Lynn, Mass. One of these, particularly, is such work as always does us good to look at. A profile of an old white-haired gentleman, in which the most exquisite modelling and detail are given. We have the promise of something for the journal from these gentlemen, and we predict for our readers a treat when it comes. From A. C. Mc-Intyre & Co., Alexandria Bay, Jefferson County, N. Y., a lot of fine stereos of "Scenery among the Thousand Islands on the River St. Lawrence." From Mr. A. Bogardus, New York, several charming cabinet pictures in different styles. The effects are exquisitely fine. From E. J. Foss, Boston, some very pretty cards mounted on glass. This gives an enamel or sort of porcelain finish that is very effective. From Mr. Mason, of Medina, Ohio, a number of stereos of snowscenes and frostwork. The following pictures all show effort and progress on the part of the authors, and they all deserve credit for their work: Mr. H. Albee, Marlboro', Mass., cards and cabinets; C. C. Giers, Nashville, Tenn., cabinets; H. L. Bingham, San Antonio, Texas, cabinets; S. J. Morrow, Yankton, Dakota, cards, showing his work made several years ago and that at the present time; the improvement is very marked; also stereo of Indian chiefs. Cards also from the following: J. Paul Martin, Boone, Iowa; Orin McIntyre, Canton, Ohio; G. W. Tirrell, Weymouth, Mass.; J. M. Capper, Troy, N. Y.; Balch, Boston; R. Knowlton & Son, Minonk and Eureka, Ill.; E. H. Train, Helena, Montana; and from T. S. Johnson, Chicago, cards and stereos of animals, very successful. From G. W. Edmondson, of Plymouth, Ohio, a number of expressive stereos, entitled "The Drinker's Progress;" also a card of "The Notorious Van Pelt," of whisky war fame.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stockdcalers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23rd to secure insertion. Advertisers will please not ask us for recommendations. The words we cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

THE subscriber will dispose of the following articles, for want of use. One 4-4 Usener lens, selected by myself, warranted fine; one 1-2 size French lens made by Gasc & Charconnet, fine; one 4-4 mahogany view and portrait box, double swing-back, fine and in good condition; one 2 tube box, swing-back, for plates 4 x 6 2, 2 holders, good; one sliding card box, Peace's make, 4 card and 4 holders: two 4-4 plain boxes, with holders considerably worn; one large camera stand, Peace's make; two backgrounds on frames 8 x 8, heavy castors; one circular platform, on castors 41 feet in diameter, covered with carpet; one Knell's fringed chair; one 8-10 covered rubber field bath; one 4-4 porcelain bath; two pieces canton matting, each 10 x 14 feet, good; one letter copying press, 11 x 17 inches. WILLIAM H. RHOADS,

1800 Frankford Road, Philada, Pa.

To Landscape Photographers.—Please remember, during the coming season, that we are in the market constantly for the purchase of good Stereoscopic Negatives of interesting American Views. Send proofs and prices of negatives to Benerman & Wilson, Photo. Publishers, Philadelphia.

THE STEREOGRAPH BOOK, adapted to the complete preservation and convenient arrangement of the pictures in the most compact form, Prof. Charles F. Himes, Ph.D., Inventor, is a book made after the plan suggested by Prof. Himes in the *Philadelphia Photographer*, for January, 1874. Price, 50 cents. Dealers and stereoscopic publishers supplied on good terms.

BENERMAN & WILSON, Publishers, Phila.

Griswold's Stereoscopic Compositions. Read advt.

To View Photographers.—For sale cheap, Zentmayer lenses and mountings to form all six combinations, from 2½ to 18 inch focus; Zentmayer & Willard stereoscopic tubes; also camera boxes, tripods, &c. Address or apply to

> James MacGregor, 257 Fulton Street, Brooklyn.

NEGATIVES of the Yosemite Valley, Niagara, Sierra Nevadas, &c., for sale. J. J. Reilley's make. Proofs and prices supplied by

> BENERMAN & WILSON, Photo. Publishers, Philada.

Criswold's Stereoscopic Compositions. Read advt.

SPECIAL AND IMPORTANT NOTICE TO PHOTOGRAPHERS.—All photographers have a right to use Entrekin's Patent Oscillating Enamelers for burnishing their photographs, for which I hold a patent for seventeen years. We do not resort to advertising dodges in order to sell them. They sell at sight. We can, do, and will protect all who may use them, and there is no necessity for being alarmed at the insinuating advertisements that may appear from time to time. A patent for a hot-roller press was granted several years ago. We do not claim that, but we do claim all the improvements we have made both in the machine and in the results. Compare for yourself.

WM. G. ENTREKIN,

Patentee of the Oscillating Enameler, Manayunk, Philada., Pa.

The Rapid Photo-Washer will wash your prints in ten minutes.

HEALTH LIFT.—See advertisement, and also our editorial next month. See one in the office of the *Philadelphia Photographer*.

Any person having any claim against J. H. Dampf, please present them for adjustment to J. H. Dampf, Corning, N. Y.

Copies of the "Photographic World" for June, August, and December, 1872, wanted. 50 cents per copy paid for them at the office of the "Philadelphia Photographer."

For Sale.—A newly fitted gallery in a good business town, with two railroads and good country round; must be sold by the first of June. Cheap, and terms easy. Address

J. H. BAGLEY, Tioga, Pa.

USE WAYMOUTH'S VIGNETTE PAPERS.

For Sale.—The finest, most pleasant, and most completely fitted gallery in New England. Established nearly fifteen years. Population of town, 18,000 to 20,000; splendid back country, and surrounded by large factory villages. Satisfactory reasons for selling. Address

PHOTOGRAPHER,

Lock Box 1654, Norwich, Conn.

To Landscape Photographers.—Please remember, during the coming season, that we are in the market constantly for the purchase of good Stereoscopic Negatives of interesting American Views. Send proofs and prices of negatives to Benerman & Wilson, Photo. Publishers, Philadelphia.

Wanted—An energetic partner with \$2500 cash, or more, in a good flourishing gallery in one of the handsomest cities of the Union. Would sell out entire, but prefer a partner. Address "32," care Benerman & Wilson, Philada.

See advertisement of Rapid Photo-Washer.

For Sale—at a bargain, to any photographer who can do thoroughly good and artistic work—one-half interest in a popular, centrally located gallery in Ithaca, N. Y. Lease runs six years.

Address Albert J. Purdy,

P. O. Box 797, Ithaca, N. Y.

Griswold's Stereoscopic Compositions. Read advt.

For SALE.—One of the leading photograph galleries in the Middle States. A cash purchaser can get a great bargain. For particulars, address

C. W.,

Care Scovill Manufacturing Co.

Newell's Baths and Dishes having been indorsed by the trade, have been placed in the hands of all stockdealers for sale. Please inquire for them.

Wanted.—A good photographer, with \$1500 capital, to take a one-half interest in one of our best galleries (worth four times the amount). A rare business opportunity for a No. I operator. Address, immediately, "Energetic,"

Care Scovill Manufacturing Co.



MAGIC LANTERNS AND SLIDES WANTED.

Marcy's Sciopticon, Stereo-Panopticon, pair Marcy's Sciopticons, and two pairs Oxy-Calcium Stereopticons, for sale low. Address

THEO. J. HARBACH.

If you want to improve your work and save time get the Rapid Photo-Washer.

Photo. Car for Sale.—First-class, and well accounted. For terms and description, address E. W. Blake, Phillipsburg, N. J.

Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

We cannot have letters directed to our care unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

By an operator. Thorough knowledge of all branches. Thirteen years' experience. With reference. Address H. L., care *Philadelphia Photographer*.

In some good place to work this summer, wages not so much of an object as to give good satisfaction to the firm. Address C. J. Appleby, Watts Flats, Chaut. County, N. Y.

In a good gallery; can work at all branches, but not perfect in any; have worked three years at the business. Address Peter Williamson, Box 35, St. Johns, Mich.

By a young man to learn the photographic business; good references given. Address, giving terms and particulars, S. P. Large, Putnam, O.

As operator. Has had seven years' experience in the business. Address Freadell, 30 Parkman Street, Cleveland, Ohio.

As operator, assistant, or to do general work. Address J. A. Schaffer, Box 175, Tamaqua, Pa.

As a first-class printer and toner. Address J. A. Robertson, care A. Tinipe, Artist, Second St., Davenport, Iowa.

A first-class operator and retoucher, at present engaged in a leading gallery, is open for an engagement. References and specimens sent on application to Alfred Billows, Ottawa, La Salle County, Ills.

By a young lady as retoucher, and to wait on the reception room, in New York or Brooklyn. Address S. M. J., 77 Christopher St., New York.

USE WAYMOUTH'S VIGNETTE PAPERS.

By a young man of steady habits, as an assistant operator and printer. One year's experience. Address, stating your own terms, "Photographer," Box 157, Mechanicville, Sar Co., N. Y.

By a lady in a photograph gallery, either as printer and toner, retoucher, or to attend in the reception room; is competent to fill any of these positions. Address Lizzie M. Jones, care O. B. Parken, West Meridan, Conn.

By a first class operator and retoucher. Open for an engagement from May 1st, at reasonable salary, or would run a gallery on shares. Address "Photographer," Box 49, Indiana, Pa.

By an A No. I operator and retoucher, India ink, erayon, and water colorist; would take charge of gallery, or on shares. Address Geo. M. Grob, Richwood, Union County, Ohio.

As printer at a summer resort the coming season; will assist at operating. Address A. H. Atwood, West Troy, N. Y.

By an artist in a first-class gallery, to work in ink, water colors, and negative retouching. Address Artist, 81 Breckenridge St., Buffalo, N. Y.

By a first-class retoucher and crayonist. Address M. E. Torrey, P. O. Drawer 254, Kalamazoo, Mich.

By a yound lady in a photographic gallery, to attend reception room. Address Kate Cameron, 2143 N. Fourth St., Philadelphia, Pa.

As an operator, printer, or toner. Can give good references. Address J. A. Robertson, Rock Island, Rock Island County, Ill.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

By This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary, 27 Central Square, Cambridgeport.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J. Brooklyn Photographic Art Association, Brooklyn, N. Y.—Fourth Tuesday in each month, at 179 Montague Street. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary.

Maryland Photographic Association, Baltimore.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N. H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Society of Philadelphia.—At No. 520 Walnut Street, third floor, first Wednesday of each month. J. C. Browne, President; E. Wallace, Jr., Secretary, 1130 Spruce Street.

Pennsylvania Photographic Association, Philadelphia.—At the galleries of the members. H-C. Phillips, President; R. J. Chute, Secretary, Office Philadelphia Photographer. Third Friday.

Photographic Association of the District of Columbia, Washington, D. C.—E. J. Pullman, President; C. M. Bell, Secretary, 45 Pennsylvania Ave, Washington. First Tuesday, monthly.

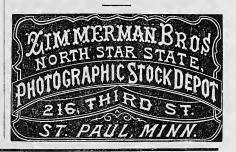
Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

Photographic Association of Western Illinois.— At Galesburg, first Wednesday of October, January, April, and July. S. T. Bryan, President; J. F. Barker, Secretary, Galesburg.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each mouth. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State Street.

Chicago Photographic Institute, Chicago.— 1st Monday, monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, See'y.



GEO. KNELL,

MANUFACTURER OF

PHOTOGRAPHIC POSING CHAIRS AND LOUNGES, &c.

ALSO.

SOFA-BEDS, and all kinds of ADJUSTABLE CHAIRS, ALWAYS ON HAND,

No. 155 NORTH FOURTH STREET, PHILADELPHIA, PA.

THE

In order that photographers may have an early opportunity of studying the very elegant pictures from negatives which have been sent to us in competition for our

COLD MEDAL

we shall publish them for sale. There are THIRTY PICTURES IN A SET-of men, women, and children-and the following is a catalogue of them, numbered in the order in which the negatives were received.

- 1 A. N. HARDY, Boston, Mass.
 2 J. McClure & Co., St. John, N.B.
 3 D. Ginter, Conneautville, Pa.
 4 W. N. Lockwood, Bipon, Wis.
 5 F. B. Clench, Lockport, N. Y.
 6 THEO. Nieberg, St. Marys, O.
 7 C. Chabbourne, Toledo, O.
 8 E. H. Alley, Toledo, O.
 9 B. Gray, Bloomington, Ill.
 10 C. D. Mosher, Chicago, Ill.
 11 E. T. Whitney, Norwalk, Conn. 12 N. H. BUSEY, Baltimore, Md.
 13 M. T. CARTER, Worcester, Mass.
 14 W. W. W. Hulddit, Newburg, N. Y.
 15 L. G. BIGELOW, Williamsport, Pa.
 16 G. M. ELTON, Palmyra, N. Y.
 17 I. SAUNDERS, Alfred Centre, N. Y.
 18 BRADLEY & RULOFSON, San Francisco, Cal.
 - 19 FORRESTER CLARK, Pittsfield,
- 21 F. L. STUBER, Bethlehem, Pa. 22 D. T. BURRILL, North Bridge-water, Mass.
- water, Mass.

 23 J. Barhyddt, Rochester, N. Y.

 24 Albright Bros., Wooster, O.

 25 F. S. Crowell, Mt. Vernon, O.

 26 Trask & Bacon, Philadelphia.

 27 G. W. Harris, Lancaster, N. Y.

 28 B. Williams, Tunkhannock, Pa.

 29 F. Gutekunst, Philadelphia.

 30 J. Inglis, Montreal, Can.

It will be seen that a number of our best photographers have competed.

THE AWARD WAS MADE FOR NO. 18.

Three negatives or more were sent by each competitor. The sets include one example from each competitor. All the duplicates may be had to order.

The prints are supplied at the following rates:

A Set of Thirty in	the Improved	Photograph	Cover,	\$4	00	
" " wi	thout "	**			75	
Selections, per doz	zen			2	00	

EVERY OPERATOR & EVERY PRINTER SHOULD GET AND STUDY THEM.

Nothing so really elegant was ever offered for sale.

ORDERS FILLED IN TURN.

BENERMAN & WILSON, (Publishers,) 7th & Cherry Sts., Phila.

IMPROVED

PHOTOGRAPH COVERS.





Fig. 2.

Fig. 1.

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

IT SERVES ALL THE PURPOSES OF AN ALBUM, FOR

A Series or a Set of Portraits, A Series or a Set of Landscapes, A Series or a Set of Photographs of any kind,

MAY BE NEATLY AND CHEAPLY BOUND IN THESE COVERS.

They are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. Fig. 1 represents the cover, with the perforations in the back, through which the spreading clasps of the paper fastener bind the whole together. These are so easily inserted or removed, that pictures are readily put in or taken out at any time. Fig. 2 represents the picture, with the guard pasted on ready for insertion. The arrangement is simple, and we are sure will be readily comprehended. For binding together views of your town or city, or portraits of celebrities, they are very neat.

The following is a list of sizes and prices, without cards:

For Photogr	-							er hundred. \$10.00
Cabine	Size,			2.25				13.50
5-8	66			3.00				18.00
4-4	66			6.00				36.00
8-10	66			7.50				45.00

Larger or special sizes made to order. Furnished with card board at best rates. Samples mailed at dozen price.

BENERMAN & WILSON, Photo. Publishers, Seventh and Cherry Streets, Philadelphia.

PHOTOGRAPHIC BOOKS

FOR SALE AT ALMOST NOTHING.

"A FEW MORE LEFT."

BARGAINS FOR PHOTOGRAPHERS.

The Late Fire

In Sherman's Building having caused a portion of our stock of Books and Magazines to be deluged with water, we offer the following bargains to operators, assistants, employers, &c.:

43	Copies	Dr. Vogel's Reference-Book,	. \$0	50
47		Anderson's Comic All-my-Knack (paper),	. "	20
26	66	" (cloth),		30
50	"	How to Sit for your Photograph, ".		20
6	66	" " (paper),		10
14	"	Carbon Manual (cloth),		50
12	66	Photographic Mosaics (cloth),		30
89	66	" (paper),		25
60	"	Linn's Landscape Photography,		25
34	66	Year-Book of Photography,		25
40	"	Glimpses at Photography,		50
16	66	TT TO THE TOTAL TO THE TAX A TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE		75
800	"	Photographic World (1871 and 1872), .		10
600	44	Philadelphia Photographer (1865 to 1874),		15

The above goods were WET and not burned. They are now dry, and for all practical uses as good as new books, but so stained that we cannot sell them for new, and we offer them for one more month, at the above rates.

LET THE ORDERS COME NOW! One dollar will buy lots of useful reading! A good chance to fill up back volumes of our Magazines.

State your orders explicitly.

BENERMAN & WILSON, Photographic Publishers,

SEVENTH & CHERRY STS., PHILADELPHIA.

DR. VOGEL'S HANDBOOK

OF

PHOTOGRAPHY.

THE SECOND EDITION

Is in Press and will be ready soon.

SEE FUTURE ADVERTISEMENTS.

FOR SALE BY ALL DEALERS.

BENERMAN & WILSON, Photo. Publishers.

PHILADELPHIA.

THE HEALTH-LIFT

REDUCED TO A SCIENCE.

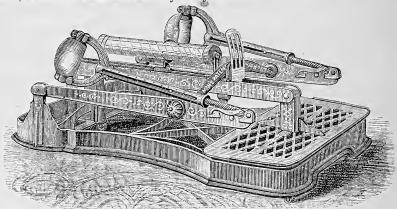
A Thorough Gymnastic System in Ten Minutes Once a Day.

Cumulative Exercise, popularly known as the Health-Lift, or Lifting-Cure, cumulative Exercise, popularly known as the Health-Lift, or Lifting-Cure, whilst improving the health, will double the actual strength in three months; occupies only ten minutes once a day; furnishes a safer and more valuable mode of physical training than the gymnasium, or any other system; it is adapted to both ladies and gentlemen, requiring no change of dress; does not fatigue or exhaust, but, by equalizing and improving the circulation of the blood, refreshes and invigorates; and finally, is daily recommended by leading physicians, to those suffering from want of tone and vigor, or from dyspepsia and other forms of indigestion, or from the various diseases of the nervous system, or from the classes of silments caused by torror or convestion of the liver—in short it is or from the classs of ailments caused by torpor, or congestion of the liver—in short, it is warmly approved by the Medical Profession as the most efficient, safe, and simple means of preventing diseases arising from sedentary habits. In brief, it consists of a series of gradually increasing muscular efforts, alternating with appropriate rests.

Its rationale may be thus summed up: It is a harmonious and simultaneous exercise of the whole body; every muscle is brought into use, and each in proportion to its relative strength. So distributed is this effort, that there is no danger of injurious strain or rupture. The strength is augmented and equalized, and thus the individual becomes uniformly strong,

and consequently healthy. It puts a man in possession of himself. It is a true exercise, a correct developing agency, and, in many instances, a safe method of cure.

These results may be secured by the use of the "Reactionary Lifter," which commends itself for cheapness, durability, and portability, its elegance and uniqueness of construction, as well as its ease and accuracy of adjustment.



THE REACTIONARY LIFTER.

This form of exercise is especially adapted to Professional Men, Students, Ladies, and all who lead a sedentary life.

Full particulars sent free on application to the

HEALTH LIFT COMPANY.

46 East 14th Street, New York.

PHILADELPHIA AGENCIES.

226 South Third Street, and 1516 Chestnut Street.

BENJAMIN FRENCH & CO.,

159 Washington St., Boston,

Importers and Sole Agents in the United States for the celebrated

Voigtlander & Son, and Darlot Lenses

For Portraits, Views, and Stereoscopic Work of all sizes. Send for Price List.

TRY OUR NEW STEREOSCOPIC LENSES

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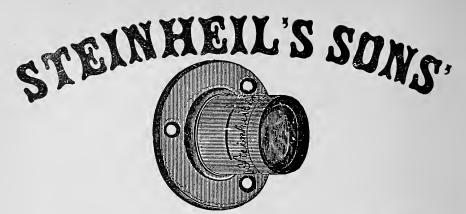
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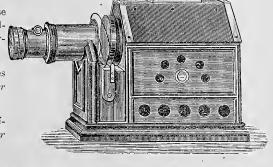
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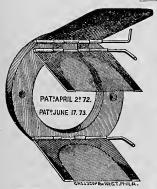
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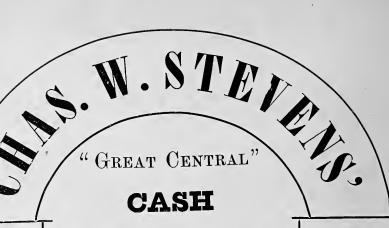
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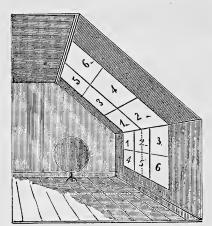
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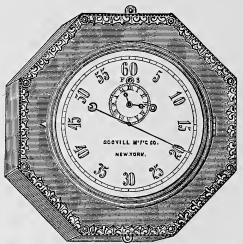
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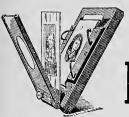
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I need not comment on this frame, for when tried will prove for itself. For printing on the Porcelain plate it is best and a success. Having a self-adjusting bed, will form to any thickness of plate. For common printing it is complete. But the most to be praised is the Imitation Porcelain for which it is invented, which all prefer to the genuine Porcelain, for the reason they can be sent by mail and will not break. They are printed on Albumen Paper, the same as a Card Photograph, and when framed in a velvet Passepartout can scarcely be detected from the genuine Porcelain.

I have used one of these frames in my gallery the last year, charging two dollars per dozen more for this kind of work. All of my patrons prefer this to the porcelain, and find no fault with the price. I have therefore secured a patent, and propose to manufacture and put them in the market for sale, that others may use them. I feel satisfied that by trying them they will prove satisfactory; if not, you can return the same by paying charges.

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66	5 x 7	66					5 00	1	"	8 x	10	6	٠.		5	75
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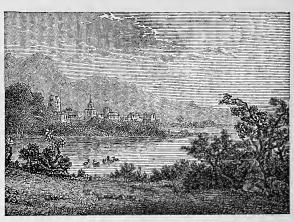
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* *

LINN'S LOOKOUT LANDSCAPE PHOTOGRAPHY.

Pocket Manual for



the Landscape Photographer,

YET CONTAINING MANY USEFUL HINTS FOR ALL PHOTOGRAPHERS.

By the Late Prof. R. M. LINN,

LOOKOUT MOUNTAIN, TENN.

This admirable little work was published last fall, a little too late for the season. It is now confidently recommended to every photographer about to do any class of work, *outside* or inside the skylight.

CONTENTS.

Introductory.

Main Requisites of a Good Photographic Landscape. Artistic Effect. Proper Illumination. Direction of Light. Clouds. Length of Exposure.

Apparatus for Field Work. On the Selection of View Lenses. Camera Boxes. Bath Cnps. Preliminary Preparations. Taking the Field. Hints on Printing and Finishing. To Print Clouds.
Toning Bath for Views.
On Fixing and Washing Prints. Suggestions on Mounting Prints. To Cut Stereoscopic Prints. To Mount Stereoscopic Prints. Formulæ and Processes for Landscape Photography. Ever-ready Iodizer for Landscape Photography.

Remarks on Preparing and Using Iodizer.
On the Management of Flowing Bottles.
On the Preparation of Plain Collodion.
The Silver Bath for Negatives.
To Renovate an Old Negative Bath.
To Prepare Carbonate of Silver.
Permanganate of Potash—Its Use in our Art.
Preparation and Using of Developer.
Fixing Solution for View Negatives.
On Redeveloping and Strengthening Agents.
To Clean and Polish the Glass.
To Prepare Chloride of Gold Solution.
The Paste for Mounting of Photographs.
The Operator's Oracle—Failures: Causes and
Remedies; for consultation in time of trouble.
Counsels and Cautions for the Printer, including
Formulæ for Silvering Bath, &c.
Failures in Silvering Albumenized Paper.
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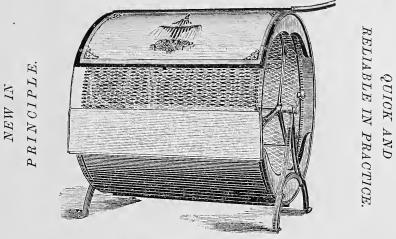
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Instead of soaking the Prints it applies the water in the form of spray, with considerable force, to both sides of the paper at each revolution, or from one hundred to one-hundred-fifty times per minute.

Washes with exact uniformity, and gives more brilliant and permanent work; is simple, not liable to get out of order, and will last a life-time.

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Diam.	16in.	Length	14 1-2in.	84	14 by 17 ins.	\$30
44	20	"	19	144	18 by 22 "	40
44	25	"	24	220	22 by 28 "	50

Larger sizes may follow.

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"I write to testify to the satisfaction I feel with the working of your Rapid Print Washer. It is simply perfection, as far as my experience with it goes, viz: One year's constant use. I have washed eight dozen cartes in ten minutes, and the most accurate test I know of, starch and iodine, failed to show a trace of hypo. remaining.'—L. G. Bigelow, Detroit, Mich., Feb. 10th, 1874.

"Time saved is mouey carned." The above maxim is as true in the photographic husiness as in any otker, and in this connection I would say, that Moulton's Rapid Photo-Washer will save more time in any well-regulated gallery, than any mechanism ever yet invented; besides the prints finish with a finer lustre than those washed by any other device I have ever yet seen. Having used one for the past two mouths, washing from 100 to 300 prints daily, I am pleased to add my testimonial to its excllence."—WM. M. LOCKWOOD, Ripon, Wis. March 11th, 1874.

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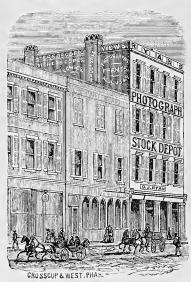
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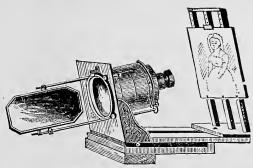
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Savannah, Geo.

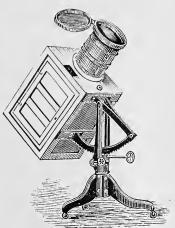
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DIRECT PRINTING CAMERA.

IMPROVED

Manufactured under the immediate direction of the original inventor and patentee, combining ALL THE IMPORTANT improvements that have been made. The CONDENSING LENSES, free from color as can be obtained, and the objective or MAGNIFYING LENSES (which are triple compound) of short focus, are made in Europe expressly to order, while the OPTICAL CONSTRUCTION of the apparatus is calculated to secure the greatest amount of light to pass through the negative WITH PRECISION AND RAPIDITY of action. By recent improvements the bodies of these Cameras, are composed principally of METAL, combining lightness with great strength and durability, rendering them unaffected by exposure to the weather. The REFLECTING CAMERA can be moved to and from the window with the greatest ease, carrying the sensitive surface along with it; while the mode of working its reflector has been so improved that the HIGHEST WINDS CANNOT DISTURB IT, at the same time the regulation being effected with the greatest facility, thereby securing sharpness and perfection of the picture.

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]	10	inch	diameter	Condensing	Lens,	will print	picture	18 x 23	in.,					\$190	00
]	12	"	44	"		. 7	- 44	25×30	46					220	00
1	5	6.6	+4	66	"	"	6.6	29 x 36	"					275	00
1	18	66	44	**	"	"	4.6	40×50	4.4					. 380	00.

Every Camera will be tested and guaranteed before delivery, and will be licensed and accompanied by the regular Patent Stamp of the patentee.

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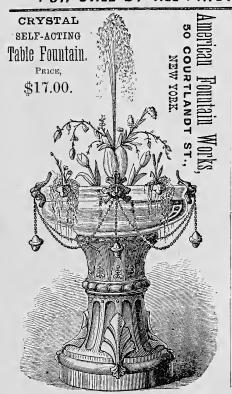
MESSRS. R. NEWELL & SON.

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Because it is a ready helper under all difficult circumstances.

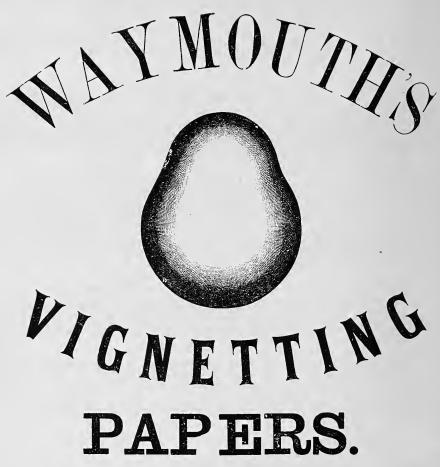
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" 8, 9, 10, 14, and 15, 16, 17, and 18,		66				Whole-size,		"	1 00 1 25

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VIEWS ABROAD AND ACROSS,

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THEY ALONE WILL BE WORTH THE COST OF SUBSCRIPTION.

ILLUSTRATIONS, by means of engravings, cuts, &c., will be profusely employed, and every effort made to secure to the readers of the Philadelphia Photographer

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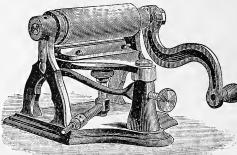
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OSCILLATING ENAMELER.

FOR

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Every Machine warranted perfect.

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The pressure is certain, and can be operated in an instant correctly.

The removable burnisher is another great advantage, giving the photographer the opportunity of having several, so that if one becomes injured it can immediately be removed and replaced with another one, causing no delay. SOLD BY ALL DEALERS.

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C. M. PARKS, Solicitor of Patents.

WM. G. ENTREKIN.

Office of C. M. Parks, Solicitor of Patents, 428 Seventh Street Washington, D. C., January 5th, 1874.

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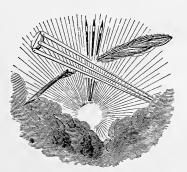
AN ILLUSTRATED MONTHLY JOURNAL,

DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIO ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

June, 1874.



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SOMETHING NEW! See Advertisement inside.

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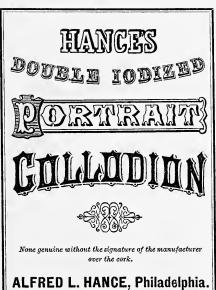
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Protosulphate of Iron, 1 ounce.

Water, 16 "

Acetic Acid, 1½ to 2 ounces, according to subject.

Alcohol, enough to make the Developer flow readily.



BAIN.
Nitrate of Silver, 35 grains.
Water, 1 ounce.
Iodize with Iodide of Silver.
Slightly acidify with C. P. Nitric Acid.

HANCE'S BATH PRESERVATIVE.

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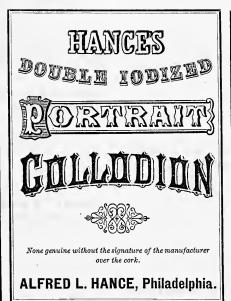
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Hance's Delicate Cream Gun Cotton, Per Ounce, 80 Cts
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rer bottle,50 Cts
Hance's Ground Glass Substitute,
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Hance's Bath Preservative Heads off Pin Holes and all Bath Trouble
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I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "promise very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past six months in my gallery, I can conscientiously pronounce them first-class in every respect. Your Ground Glass Substitute I consider one of the most practical and useful articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

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I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "promise very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past ix months in my gallery, I can conscientiously pronounce them first-class in every respect. Your Ground Glass Substitute I consider one of the most practical and useful articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

R. Newell

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- 8. She went to the Butchers.
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- 10. The Mountain Spring.
- 11. Unveiling a Statue of Young America.
- 12. Young America in the Nursery.
- 13. Young America as an Artist.
- 14. Young America Asleep.

- 15. The Sunbeam Fairy.
- The Picture-Book.
- 17. Sitting for my Picture.
- 18. Young America Bathing.
- 19. Young Boston's Ambition.
- 20. Ding-Dong-Ding, Music on a Rubber String.
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BENERMAN & WILSON, Publishers.

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In order that photographers may have an early opportunity of studying the very elegant pictures from negatives which have been sent to us in competition for our

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 3 D. Ginter, Conneautville, Pa.
 4 W. N. Lockwood, Ripon, Wis.
 5 F. B. Clench, Lockport, N. Y.
 6 Theo. Nieberg, St. Marys, O.
 7 C. Chabourne, Toledo, O.
 8 E. H. Alley, Toledo, O.
 9 E. Gray, Bloomington, Ill.
 10 C. D. Mosher, Chicago, Ill.
 11 E. T. Whitney, Norwalk, Conn.

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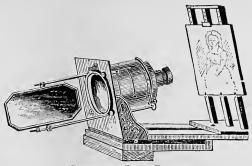
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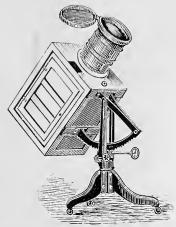
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Opened April 1st, is furnished with twelve backgrounds, new in design, from the Scenic Studio of

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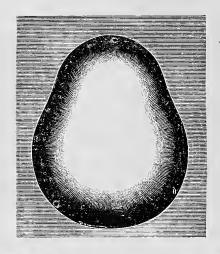
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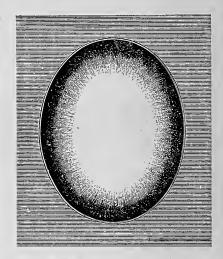
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ARE NOW MADE OF TWO SHAPES, as shown in the drawings above. They consist of finely gradated, lithographed designs, mounted on protecting sheets of non-actinic paper, and are the light est, neatest, and best means of producing vignette pictures ever offered.

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(See opposite page.)

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of all pictures, the **Higherty** is the most artistic,

When properly printed. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic viguette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

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They entirely do away with all the old and troublesome methods, either wood, metal, or cotton.

PLEASE TRY THE SAMPLE GIVEN IN THIS MAGAZINE FOR FEB. 1874.

Eighteen sizes are now made, suiting all dimensions of pictures from a small carte figure to Whole-size, Victorias, Cabinets, &c. They are printed in black for ordinary negatives, yellow bronze for thin negatives, and red bronze for still weaker ones. Directions for use accompany each parcel.

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In parcels containing one of each size, Nos. 1 to 15, assorted colors								
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Nos. 1, 2, 3, 4, and 5, assort	ed sizes and		, for Cartes, by number, per					
" 6, 7, 11, 12, and 13 "	"	ш	Large Cartes and Victorias,	by number,	per doz 75			
" 8, 9, 10, 14, and 15 "	"	44	Cabinets and Whole-size,	"	"			
" 16, 17, and 18, "	"	"	Half " "	"	" 1 25			

(SEE OPPOSITE PAGE.)

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THE ATTENTION OF PHOTOGRAPHERS is invited to my stock of photographic goods. I am prepared to fill all orders, large or small, promptly at best prices.

ALL THE NOVELTIES

are received as soon as by any one in the market.

AMONG OTHER THINGS,

The American Optical Co.'s Apparatus,
Entrekin's Oscillating Enameler,
Chute's Universal Cameo Press,
Robinson's Print-Trimmers and Guides,
Morrison's and Steinheil's View Lenses,
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All Makes of Portrait Lenses,
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are carefully selected for my special sales. My expenses are light. I do my own work personally, and can supply goods as low as the next one.

A trial order solicited. Freight and expressage from Baltimore very low to any point South or West.

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No. 7 No. 7 No. 7 NORTH CHARLES STREET, BALTIMORE, MD.





ARESSING FOR THE MASQUERADE.

Philadelphia Photographer.

Vol. XI.

JUNE, 1874.

No. 126.

Entered according to Act of Congress, in the year 1874, BY BENERMAN & WILSON, In the office of the Librarian of Congress, at Washington, D. C.

THE MAMMOTH OFFER.

WE want to keep this matter before the fraternity, as it is, perhaps, one of importance to the life and future success of the National Photographic Association. From all quarters we have applications for tickets, and words of encouragement to the effect that the National Photographic Association must be sustained; but as these only comprise a few of the great number upon whom the Association depends for support, we want all to feel the necessity of lending a helping hand to place it on a firm and sure basis. The offer to which we call attention, made by Messrs. Benj. French & Co. of Boston, and the Scovill Manufacturing Co. of New York, of a mammoth lens and camera, gives every one a chance to secure this prize for the small sum of three dollars. The tickets are going off steadily, and we shall expect to see lively times over it at the Chicago convention. Send in your orders early.

Should there be anything concerning the offer which you do not understand, please write us for information.

It has been decided that the articles will be drawn, and not voted for, the first number drawn securing the prize.

Several of those who have recently bought tickets indicate their preference for that method; and, as intimated in our last, the donors of the articles will respect their wishes.

THE CHICAGO EXHIBITION AND CONVENTION.

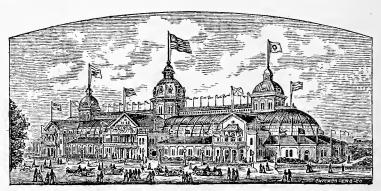
It is no unusual thing in matters national, state, municipal, and corporate, to see affairs assuming such a shape that a wretched wreck seems almost inevitable. And we confess to having had a disagreeable feeling a few months ago that some such fate was hovering over the affairs of the National Photographic Association. We have alluded to the matter frequently, and all we want to say on that score now is, that we don't think so any more. We are quite sure that the Association is stronger to-day than it has ever been before, and we are ashamed that we listened to any croaking insinuations that it would ever be anything else than strong. We were mistaken in our estimate of the esteem in which the Association is held by the photographers of the United States. They know it is a good thing for them and they mean to uphold it. The many letters we have received from near and far, saying "The Association must eontinue," "Don't let it go down," &c., &c., reassured us, and our late visit to Chicago in company with President Bogardus convinced us that the National Photographic Association is a necessity, and that there is plenty of pluck and backbone left to sustain it. Moreover, the Annual Convention and Exhibition to be held at Chicago, in

July, is going to be the best one and the largest and most beautiful ever held.

We spent one whole day with President Bogardus and Local Secretary Hesler, visiting the fraternity there, and in the evening one of the most enthusiastic mass meetings we ever saw was held. A resolution welcoming the Association to Chicago was adopted unanimously. And although the Chicago photographers are not as ready for their guests as they hope to be in a few years more, on account of the dreadful fire which so recently destroyed all their galleries, i, e., ready with as handsome studios as they would in their honest pride like to show, yet they are as ready with earnest welcome and hearty interest to have you, as they ever will be and are determined to do their best. They are flocking around Mr. Hesler to help him all they can, and all who go there will be sure of a genuine Western reception. Chicago is the most wonderful city in the Union, and well worth a long travel to see. The hotels there have hardly any equals in the world. The Grand Interstate Exposition Building is the largest of its kind in America, and it has been secured for the National Photographic Association. We present a picture of it herewith. Inside, opposite the main

and air, and every convenience for the uses of the Association will be attended to. We do not see how anything could be better. Success is already guaranteed when such eminent photographers as Messrs. Brand and Mosher and Fassett and Rocher and Hall and Copelin and their neighbors take hold, assisted by the fraternity from the neighboring cities. All they ask of you is to come and see what a hearty reception you will have, and how much they will have ready to teach you and make you feel paid for any sacrifice you make to be there.

The stockdealers are a unit in doing their share of the work, and photographers will find in their stores, all new, a show of goods needful in their line such as cannot be surpassed in any other city. Charles W. Stevens, the proprietor of the "Great Central," at 158 State Street, had just returned from a trip South when we called. He is within five minutes' walk of the exposition building, and says: "Tell the fraternity we welcome them to Chicago, and they will have the finest time they ever had together." Since our visit Mr. Stevens has announced that there will be a "levee" held at his place during the incoming and outgoing. His right-hand man, Mr. G. A. Douglass, President of the Chicago Photo-



central entrance, is a huge fountain, and all around it, and in the three Art rooms in the rear of it, will be arranged the pictures and other articles to be exhibited by our Association. In a gallery over the entrance the meetings will be held, in full view of the exhibition, although undisturbed by it.

There will be plenty of space and light

graphic Society, will be there to second or to lead in every good thing for the common interest.

Messrs. Rice and Thompson have a magnificent store at No. 259 Wabash Avenue, all newly and handsomely fitted up, and well stocked, and they assured us that they would not be backward in their efforts to

give strength to the affairs of the National Photographic Association.

Messrs. N. C. Thayer & Co. have just opened their new store at Nos. 250 & 252 Wabash Avenue, with a fine stock of goods, where Mr. Thayer's old friends will be sure to find him when he is not helping along the good work at the exposition buildings.

And although latest because newest, but not least, are Messrs. J. P. Beard & Co, who were also just fitting up their new store at No 48 Madison Street. Mr. Beard is a young man new in the trade but earnest in his desire to promote the interests of his subscribers, and invites photographers to make their headquarters at his store. He has three floors devoted to photography—one entire floor to the American Optical Co.'s apparatus.

Mr. J. A. Anderson, the apparatus maker, is alive with the rest and will not be behind. In fact we never saw any body of men in any city so universally interested in the welfare of the National Photographic Association as they are in Chicago, and when men work together in that way they are sure to accomplish their object. Altogether we do not see how things could look more cheerful than they do, and we predict not only the finest exhibition and convention ever held, but that there will be more live photographers in the land after it, more wise ones, and that the Association will leave Chicago out of debt, and stronger than we ever dreamed of.

A WORD TO EXHIBITORS HERE AND THERE.

1st. To those in the West. You know I have for several years been trying to get the Convention to Chicago, that you might all have an opportunity of attending without too great expense. Now we are to meet in the centre of the Northwest, and have the finest place to exhibit and meet in we have ever had, or are likely to have again. I wish to urge upon you all for your own BENEFIT, the importance of being present, and also bringing and exhibiting some of your work. Don't be afraid that others will eclipse you; every man's work will have some good points, and I care not how care-

fully you study the works of others, unless you hang up and compare your own with them, you will not be able to detect your faults, or see the point to correct them. This I saw illustrated and admitted to me last year in Buffalo, by one of the best photographers in the country. He said to me, "I did not perceive it until I came to compare; but now I see plainly that I have been lighting too strong of late, and must correct it as soon as I get home," and he was not alone. Some found they did not light strong enough, and a thousand points can be seen only by comparison, so bring your work as well as yourself. In omitting this, you acknowledge to all, and especially to your patrons at home, that you are afraid to have your pictures hung up by the side of others. The poorest pictures will find some admirers. I observed this last July in Buffalo. Some one exhibited a very poor lot of tintypes, and I saw several admiring them as "splendid"

I have heard the remark at several conventions, that "I did not bring work, because I could not make as fine a show as some others." This is not necessary. Bring your best work; have it hung and exhibited. It is not the frames you make; it is the pictures. I have often heard the remark by people, looking at photographs, "What splendid frames," and very near such a grand display hung good pictures in very plain frames, and they would exclaim, "What beautiful pictures."

We don't object to your pictures being nicely framed, but don't keep them away if they are not. Last fall, in the very building we are to exhibit in next July, I saw photographs gaudily framed that were passed by without comment, and a small collection by a new young man, plainly framed, near by, attracted a great deal of attention and praise.

The above applies to all photographers in small places, and men of small means. These conventions are for your benefit, no matter where you are located, and if you wish to advance in the art, and in a pecuniary way, don't, through fear or modesty, neglect this best of all opportunities of making your work and yourself known before the world.

To our Canadian friends we extend the right hand of invitation and welcome, and say, come!

To the East and South, I know you will come, because we can't do without you.

Apply early for space, so I may know how much to prepare. Ask for enough, and then see that you fill it.

Unless serious objection is made, I shall class or place all work so as to have each State by itself. So it behooves each State to see to it that it makes a good showing.

A. HESLER, Local Secretary N. P. A.

Post-office address until July 6th, Evanston, Ill.

After July 6th,

Exposition Building, Chicago, Ill.

SUGGESTIONS TO ALL Intending to visit the N. P. A. Convention at Chicago, in July.

WE want to see everybody here by Monday, July 13th. Parties coming on the different routes from any point, and all large railroad centres, should try and secure or charter cars at specific rates, and fill them first with photographers, and there not being enough of these to fill them, sell tickets to any who can be induced to come and see Chicago, as well as the Exhibition. Please take action now, and report to Permanent Secretary Wilson, so it can be embodied in the circular to be sent out the last of June.

A. HESLER, Local Secretary N. P. A.

ON AN IMPROVED DRY PROCESS.

BY M. CAREY LEA.

THE dry processes known up to the present time divide themselves naturally into two very distinct classes, those like the Taupenot, Fothergill, English, and other processes, in which the chief constituent of the preservative is albumen, and on the other hand those like the gum gallic, the tea, pyrogallic acid, tannin, and other processes in which no albumen is used. The

albumen processes have certain well-marked and excellent characteristics, but they are all slow and require long exposures. Nevertheless it has been found for some years past in England, where dry-plate work is very popular, that a large proportion of the best prints exhibited were made from negatives belonging to the class of albumen preservatives.

On my return to America last summer I commenced a series of experiments to ascertain whether the advantages of these two different systems could not be combined, and whether a satisfactory rapidity could not be imparted to albumen plates, whilst preserving their delicacy and fine modulation. In this attempt I have recently succeeded, even beyond my hopes, and have obtained a process differing in all its essential features from any now in use. It is a collodio-albumen dry process, and yet as rapid as the wet. At the same time in simplicity and quickness of manipulation, I believe I may say it exceeds all other dry processes.

Before proceeding to the details I may be permitted a few words of explanatory preface.

When in the year 1866 I first took up the study of the emulsion process several formulæ had been published, and some of these called for the presence of silver nitrate in excess of what is needed to decompose the soluble bromides in the collodion. But at that time, the silver nitrate was always added in powder, and much of it did not pass into solution. There was a tendency for the grains of nitrate instead of dissolving to become coated with silver bromide, and then to resist the weak solvent power of the collodion. I introduced the system of dissolving the silver nitrate by heat in a portion of alcohol, and adding this to the bromized collodion and at once agitating violently. In this way all of the silver salt was got into solution, and then I found that whenever the silver nitrate was present in excess, the plates invariably fogged. After a continued research I found that this could be obviated in two ways, either by the introduction of a chloride into the bromide collodion, or by the addition of aqua regia. The latter I gave the preference to, and the

general experience of photographers during the years that have elapsed since then, has confirmed that opinion. Sometimes, indeed, an advantage is gained by combining both methods.

The behavior of the emulsion made with silver nitrate in solution proved absolutely that up to that time no plate had ever been made with silver nitrate in excess. The excess had lain at the bottom in powder, and inert. Its doing so was all that saved the plates. Had it dissolved, they would have fogged. The addition of a chloride, or of aqua regia first rendered it possible to use silver nitrate in excess, and the gain in sensitiveness was immense. At first the extent of the advantage was hardly recognized, but latterly it has been thoroughly appreciated. In describing the action of aqua regia, I stated that any amount of excess of silver nitrate might be employed, but that I found the best results came with a small excess. I regret to say that shortly after a most unexampled attempt was made to appropriate my process on the strength of simply varying the proportion of silver nitrate. By some this variation was held to be an improvement, whilst other photographers found that they succeeded best with my formulæ. Whilst these discordant results in nowise justified the attempted appropriation the fact nevertheless remained unexplained, why such different conclusions should have been come to by different experimenters.

It was not until some time after that I succeeded in solving this enigma. I found that different preservatives required very different proportions of silver nitrate. Up to that time it had been customary to recommend one and the same proportion of silver, no matter what preservative was to follow. This system was essentially wrong, for each different preservative has its definite proportion of silver salts with which it gives its best results. The less sensitive the preservative, the larger the quantity of silver nitrate which it requires.

For a long time I had worked with the cochineal preservative which I had proposed. This is the most sensitive of all preservatives known up to this time; it therefore requires to be worked with a very

moderate excess of silver nitrate; if more be used, the plates are found to solarize easily, and if at all overexposed, are found to intensify with great difficulty.

Subsequently I tried pyrogailic acid and got very excellent results. This substance proved to be less sensitive than cochineal, but I found that this inferior sensitiveness could be compensated for by increasing the nitrate, which increase was borne in this case, though it would not have been in the case of the cochineal. By further experiments I succeeded in establishing the general law that I have stated above, viz, that the less sensitive the preservative, the larger the proportion of silver needed for it. So that we have a regular series, cochineal, pyrogallic acid, gallic acid, and tannin, diminishing in sensitiveness from the first to the last, and each member requiring considerably more silver than the next member before it.

As albumen is a preservative considerably less sensitive than any of the four just mentioned, less sensitive even than tannin, it is clear that if it be used in the preservative bath, the dose of silver must be very large in order that we may obtain a high degree of sensitiveness, and it also follows that this large dose will be borne without those inconveniences that accompany its use with the more sensitive preservatives. This is to be expected, even if the albumen be mixed with more sensitive preservative agents, for as I have already shown elsewhere, when two preservative agents of different degrees of sensitiveness are mixed, the result will be a degree of sensitiveness conferred, intermediate between the two. but rather inclining to be less sensitive.

Applying this principle I succeeded at once in obtaining very sensitive albumen plates, indeed, far more sensitive than any one would have believed that albumen plates could be. It is needless here to give the formula, since it has been superseded by a further improvement which I have just made, and shall now describe, and which is a complete departure from all existing methods both in principle and in practice.

The albumen plates which I first made were prepared in the method usual with

emulsion plates. The glasses were edged and then coated with emulsion, plunged into water, and washed till the greasy lines disappeared, then passed into the albumen preservative and dried.

In reflecting over this process, it occurred to me that silver nitrate was so completely precipitated by albumen, that there could be no reason or advantage in this preliminary washing. That, on the contrary, it was probable that a better result would be got by plunging the plate directly into the albumen bath as soon as set.

The importance of this change seemed so great that I first experimented with it in the following manner. An emulsion was taken with a very large excess of silver nitrate, an excess of ten or twelve grains to the ounce. This large excess was to make the trial more decisive, and for the same reason, the plate was coated twice, so as to get a very thick film with a large quantity of silver nitrate. A solution of albumen was prepared, which, to increase the severity of the trial, was made very dilute, one per cent. only of albumen dissolved in water, half a drachm of albumen to six ounces water. Into this the plate was plunged as soon as set. It was taken out when the greasy lines had disappeared, and the bath was tested for silver nitrate. None had been removed from the plate, and this was also the case (or only the very faintest infinitesimal trace) when the plate had been left in some time longer. All the silver had been converted into silver albuminate within the film, so that evidently the previous washing as always hitherto practiced could be dispensed with advantageously, at least with an albumen preservative, because in this way a larger quantity of organic insoluble silver salt was retained inside the film. The above trial was made by daylight.

Experiment with plates prepared in the dark and exposed in the camera gave the fullest confirmation of the expectations I had formed: in fact the gain was much greater than I had ventured to hope.

So that now I conclude that when albumen is used, the washing of the plate is just as injurious and unnecessary as would be the washing of an ordinary wet plate before plunging it into the silver bath. The wet and

dry processes are thus brought curiously tegether, for in both the plate is collodionized, and then simply plunged into a bath, and is then finished. The albumen plate may be either dried or used wet; when wet it is even more sensitive than when dry.

The simplification obtained in this way is sufficiently evident, and the diminished trouble in making the plates, also the difficulty about pure water for the washing. But these considerations are very unimportant compared with the gain to the plate itself. The advantages are:

- 1. It is much more sensitive. With an equal exposure the development is over in one-fourth the time, and with one-fourth as much ammonia carbonate.
- 2. The irradiation and blurring are greatly diminished. Small dark objects projected against a bright sky are depicted clean and sharp. Small leafless twigs in deep shadows standing against a bright sky, instead of having an indistinct and blurred effect, come out as sharp as if they had been cut in the film with an engraving tool.
- 3. There is better detail in the deep shadows, and more variety of half tone.
- 4. Much less tendency to spots and pinholes.

I shall now proceed to give the formulæ. Besides the introduction of albumen to the emulsion process, and the change respecting the washing, I have found several other improvements which promise to be valuable. I find an advantage in adding cobalt chloride to the collodion, and an alkaline nitrite. These two changes are of less importance than those previously mentioned. They are not essential and may be omitted, but they have their utility, and I prefer to employ them. Another change of more importance is the following. In processes in which albumen has been used, it has hitherto taken the place of other preservatives. use it in connection with them, that is, with gallie acid, pyrogallie acid, gum, &c.

Collodion.

To this may be added with advantage:

Cobalt Chloride, . . . 32 grains. Potash Nitrite, 32 "

Potash nitrite dissolves with some difficulty in alcohol. Half the twelve ounces of alcohol should be appropriated to dissolve the nitrite, the other salts to be dissolved in the other half. Keep the collodion in a warm light place for a month. Without the right sort of cotton a total failure will result, or at least only a partial success. The best pyroxylin I have had was made for me.*

When it is intended to prepare an emulsion, three or four ounces of collodion is taken, and to each ounce two drops of aqua-regia are added. (Aqua regia is easily prepared by adding half an ounce of nitric acid to an ounce of hydrochloric in a stoppered vial, and setting in hot water until the mixture turns orange color.)

The silver nitrate in fine powder is weighed out, taking twenty-three grains to each ounce of collodion (if the cobalt chloride and potash nitrite are used, then twenty-five grains silver nitrate). This is dissolved in alcohol. To do this, take a large test-tube, capable of holding about three ounces, so that the alcohol may occupy but a small space at the bottom, and be in no danger of boiling over. Cover the powdered nitrate with alcohol about an inch deep. Boil over a gas flame, shake, boil again, and after a couple of minutes pour this into the bottle of collodion, and instantly shake well for a couple of minutes. Pour a rather less quantity of alcohol over the residue in the test-tube, and repeat. The third time ought to finish the solution, but if not a fourth may follow. The shaking is much more effective if a bottle of such size be selected that it is only about onethird filled. Of course it must be wrapped in opaque yellow paper.

After about ten or twelve hours it will be ready for use. In the middle of this interval it should have one more good shaking. Just before using it should be filtered through sponge, or fine close linen. The plates should be edged with India-rubber dissolved in benzole, the edging along the sides not quite meeting that at the ends, but leaving an opening for the escape of water under the film. To get an even coatrour on plenty, carry it over the plate quickly, and in rocking, raise the far end but little, and slowly. These three rules will be found very useful.

As soon as set, plunge directly into the preservative bath.

PRESERVATIVE BATH.

Water,					8 o	unces.
Gum and	Suga	r Sol	ution	١, .	10 d	rachms.
Prepared	Albu	men,			5	6.6
60-grain	soluti	on of	Gal	lic		
Acid ir	Alco	hol,			3	4.4
60-grain	solut	ion c	f T	nn-		
nin in	Water	Γ,			3	++

The tannin may be used or left out. The ingredients must be added in the above order, or a flocky precipitate may be produced which ruins the bath, even if filtered out.

Gum-Sugar Solution.—Dissolve half a pound of good gum arabic and three ounces of white lump sugar in forty-four ounces water. Add one and one-half fluid drachm carbolic acid to make it keep. Shake well, and filter.

Prepared Albumen.—To the whites of five eggs, add an equal bulk of water, and a quarter ounce of acetic acid No. 8. Shake well, and filter through sponge.

Backing.—It is best to back the plates. Take one-quarter pound annatto, three ounces water, one-quarter ounce glycerin, one-half drachm carbolic acid. It will take about two days for the annatto to soften in the water, and mix up to a thick paste to be applied with a brush. If the paste by standing dries too thick for use, add water, but no more glycerin.

Development.—For a whole-size plate, take a 7 x 9 pan, put in four ounces of water and half a drachm of sixty-grain alcoholic solution of pyrogallic acid. Put the plate in (having previously removed the backing by sponging), leave it for a minute, then take it out, and put into the pan one-half drachm of fifteen-grain solution of potassium bro-

^{*} By Mr. Peter Parys, 512 Hallowell Street, Philadelphia, from whom this particular grade can be obtained.

mide and half a drachm of eighty-grain solution of flinty (not powdery) ammonium carbonate. If the exposure has been sufficient, this will presently bring up to printing density. If not, add a little more carbonate. If any trouble is experienced in getting density, it is better to redevelop with citric acid and silver, either before or after fixing. If the image is very faint, redevelop as before. But a weak image indicates bad materials or some mismanagement.

Fixing.—Very weak hyposulphite, one ounce to the gallon.

The negatives obtained by this process are not only excellent in quality, but very attractive in appearance, much more so than ordinary dry-plate negatives. In actual practice the process is very easy and pleasant to work.

Enamelled Cameo Photographs.

THESE are a combination of two methods of finishing photographs, which have been practiced for several years, viz., the enamelling by means of collodion and gelatin, and the popular embossed or cameo finish.

We have seen some charming specimens of this style by Mr. F. A. Wenderoth of this city, who is introducing them very successfully.

We regret to learn, however, that the idea is already in the hands of the processmonger, who is endeavoring to sell as new what has been the property of the fraternity for years. We caution our readers against being taken in, as they have only to practice the processes that are free to them, as published through the journals and year-books for several years past, to acquire all that they would receive for a hundred dollars or so, that they might pay one of the venders of secrets we have referred to.

In the April (1869) number of the *Philadelphia Photographer* is the California enamelling process, which is probably as good as any in use. If it were not for the press of matter on our columns, we would reproduce the article entire, but its length precludes us from doing so. We can furnish

the number referred to, however, to all who wish to try the process.

The best method is to use a thin mount, which has been moistened, and apply it to the picture, at the time the latter is placed on the glass, with the gelatin. It then all dries together, and when the print leaves the glass it is already mounted. It is then trimmed to the required size, embossed in the cameo press, and lastly mounted on the usual mount, which renders it firm, and gives a complete and beautiful finish to the whole.

Chute's Universal Cameo Press, as advertised by Wilson, Hood & Co., is the best adapted for the various sizes of any we know of.

This is a pieture that probably will command a sale wherever it is made, and is just the thing for photographers to introduce as something new.

The New Imitation Enamels.

THESE are the next thing to be all the rage, and of course everybody wants to know how to make them. The secret process man is around preying upon the anxious ones, and drawing fifty or a hundred dollars wherever he can. Now I would say to the brethren of the fraternity, don't be in too much of a hurry. The methods of doing this have been published over and over, and you may receive without cost, or if any, very trifling, all that you will get by being in haste to be ahead of your neighbor, and paying a large sum of money for it. All will have it, and all will work it, but there can be but little done with it till the public have made up their mind that they want them, and by that time all will be in possession of the secrets.

In the meantime I ask photographers to try carefully the following processes, and work out something for themselves.

Mr. B. J. Edwards, in the Year-Book of Photography for 1874, says: "Coat a piece of patent plate glass with plain collodion, and allow it to dry; now dissolve one ounce of pure neutral gelatin in eight or ten ounces of water, and immerse the unmounted prints in the warm gelatin; with-

draw the prints from the gelatin, and quickly lay them face downwards on the collodionized glass plate, pressing out all airbubbles with a 'squegee.' Allow the prints to set for about an hour, and then mount the cards, by means of a strong solution of gelatin, to the backs of the prints without removing them from the glass; when perfectly dry, run a penknife round the edges, when they may be detached from the glass and pressed in the usual way. The cards used for mounting should be very thin, and of fine quality; they should also be soaked in water a few minutes before being attached to the prints.

"Another, and perhaps a better plan than the above, is to mount a piece of stout paper to the backs of the prints in place of the cards; when quite dry the prints are removed from the glass, and after being trimmed and passed through the cameo press, they are mounted with strong glue or gelatin on the ordinary cards. The most suitable kind of photographs for the purpose are those known as medallion portraits, the head and bust being taken with a dark background, and the outer edge of the paper tinted to a warm gray by exposure to light. A great variety of effect may be obtained by exposing this part of the print under a thin negative, instead of the plain glass used to support the mask. A piece of morocco leather, or rough drawing-paper photographed in a strong side light will give a stippled effect. I have also seen some very beautiful borders made by means of a negative of a frosted window-pane.

"The prints should be one or two shades darker than is usual for ordinary work. Should they require any retouching or spotting, this should be done with lead-pencil on the surface of the rough print before it is immersed in the gelatin; it is useless to attempt to spot-out defects in the finished picture."

Mr. M. Whiting, in the British Journal Almanac for 1873, makes the following suggestions: "Having used this process for several years, I mention a slight improvement which prevents the loss of gloss and the enamel sinking, when finally it is attached to the finished mount.

"This is obtained by sticking a second

piece of paper on to the back of the print whilst it remains on the glass, and allowing both to dry before removing. The print will then be of sufficient substance to keep the glaze smooth, when fresh sticking material is rubbed over to attach to the mount.

"The other preliminaries are as before, except that about a drachm of glycerin is added to about four ounces of the plain collodion.

"The process will then be as follows: Rub the plate with white wax and ether; coat with collodion; level the plates on a stand, and pour on a hot solution of about one ounce of gelatin to twelve of water, fixed with the white of an egg. This is to be guided with a glass rod all over the plate, then the greater part tilted off, and the glass left on a level stand to dry. When dry cover the plate with water, and draw over the wet print, which is made to adhere to the gelatin with a squegee. Again dry, and paste on the paper as abovementioned; and when, lastly, dry, cut round the edge of the glass, and the print will easily come off finished with a good gloss."

Mr. L. G. Kleffel, in the Year-Book of Photography for 1872, gives the following method, which he says was communicated to him by Mr. F. Haarstick, of Dusseldorf, and to the perfection of which he can bear witness.

"Ordinary well-polished glass plates are coated with normal collodion, and when the film has set perfectly, but has not become completely dry, the pictures, which have previously been trimmed and finished, are dipped rapidly into alcohol, and applied without delay to the plates. The prints are pressed and rubbed down with smooth writing-paper, and the operation of mounting is proceeded with as soon as the back of the prints have become white, or in other words, as soon as the alcohol has again evaporated. The card-board should be allowed to remain in water for at least half an hour previously to its being employed for mounting.

"The more rapidly the pictures are applied and pressed upon the collodion surface, the more beautiful will be the finished result."

In addition to the foregoing, the Photo-

graphic World for May, 1871, has one of the best processes I have yet seen. Messrs. Benerman & Wilson can supply this to all who wish. To make the pictures properly, the form or die of the cameo press should be used to make the cut-outs, unless you have a guide of the same size and shape. The marginal printing is a matter of taste with every artist, but flashy, gaudy designs should be avoided. The suggestion of Mr. Edwards in reference to a negative of a frosted window-pane, may be practiced in a great variety, I think, by coating plates with solutions of various salts, and printing directly from them when dry, or making a negative by transmitted light.

I hope those interested will practice these suggestions, and doubtless a perfect method will soon be worked out with but little cost to any one.

Sub.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

VI.

In the streets of Vienna new things constantly attracted us. As I have said, women's rights here are fully respected, and we see them enjoying the privilege of engaging in all sorts of work.



A great lubber of a man sat on the handles looking on.

In front of a building I saw a woman filling a wheelbarrow with mortar, while a great lubber of a man sat on the handles looking on. Women earrying loads of coal and other stuff on their heads and backs could always be seen. The most of the street-cleaning and street-sprinkling is done by the women. Their sprinklers are of the most primitive sort. A hogshead on wheels, drawn by a horse driven by a woman, while in the rear walks another woman holding a rope attached to a piece of perforated tubing through which the water runs, which 'she

swings from side to side, thus increasing the influence of the water. Strange enough sights are these. While dreaming over them I met some American friends, and to meet a friend from home in a foreign land is a good thing.



In the rear walks another woman holding a rope.

One of the pleasantest afternoons in Vienna was in company with that prince of photographers, Mr. Fritz Luckhardt. Joined by his estimable lady and Dr. Vogel, we turned our backs upon photography and took a rest, such as tired brains and overworked bodies always welcome. We wandered among the gardens and in the park of the beautiful summer residence of the Emperor, at Schönhrünn; visited the Zoological Gardens, drank a glass of good water (for the water in the city is not good, and the people never drink it); lunched on "sehwarzbrod und würst;" elimbed up to the top of the beautiful Gloriat, whence we had splendid views of the country roundabout; listened to the music of the won-

derful fountains; traversed the numberless avenues of beautiful trees, and enjoyed to the full the privileges of this splendid breathing-place. We closed the day with a visit to the opera in the new opera house, which is one of the largest and finest in existence. Never shall

I forget our friend Luckhardt for his kindness, or cease to respect him for the excellent work he makes.

As I have said before, his standing as a photographer in Vienna is first. He was selected by the Emperor to be one of the jury, or the unequalled specimens of his work exhibited at the Grand Exposition would have seeured for him as great honors as those won by Messrs. Kurtz and Loescher & Petsch. I made several visits to his studio. I cannot say that it impressed me very remarkably, for we have many finer

ones in our own country. But Mr. Luckhardt's establishment is undoubtedly a model one. It is situated on the roof or terrace of the Grand Hotel, and a long climb is necessary to reach it. But in Europe people must get accustomed to such clambers, for it is a necessity. And in Mr. Luckhardt's case it seemed to make no difference, for his rooms were always crowded and his camera constantly busy. His reception, dressing, exhibition, finishing, and delivery rooms are all on one floor, and over these the skylight, dark-room, printing, and solar camera departments, are conveniently arranged, and supplied with every necessary thing to make the best of results. The assortment of furniture and backgrounds was lavish and elegant. The skylight proper was nothing extraordinary, but one in which the most beautiful effects are obtainable at almost all times. The drawings I annex will bring it more plainly to your mind.

The first one is an exterior view. It represents it as standing on the ground, while in reality it is built upon the solid marble roof of a hotel, the other rooms mentioned being underneath in the hotel building.

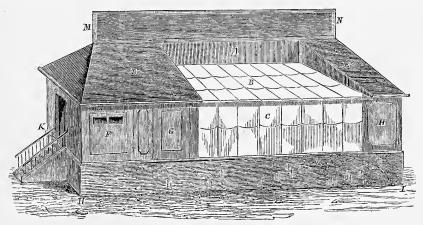
southern sun. Separate from this on the roof are the printing and solar camera rooms,

The next figure gives us the exact ground plan of the whole, and the third figure a sectional view of the skylight proper.

The dimensions are given by the figures in Austrian feet and inches, and the Austrian foot is about three eighths of an inch longer than ours. Where two commas are over the figure it means inches, and where one only is used, feet are meant. I think it is plain to you without further description. If not, I will be glad to give any who wish it further details.

Mr. Luckhardt usually works an open light, and from both ends of the room, east and west. For cabinets and large heads, he uses a four-inch diameter Voigtlander lens, and exposes on an average about fifteen seconds. His card lenses are of the same excellent manufacture.

We had many "talks" together about photography and photographers, and I found him, as one must be sure of after examining his work, a man possessing first, the most exalted opinion of his art; second, the importance of making every picture as

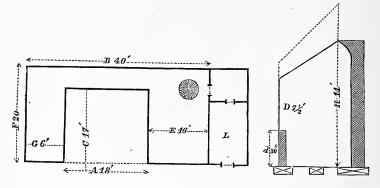


K is the entrance from the roof to the dark-room; B is the top-light, which is sunk below the angle of the roof D E; and C is the side-light, both of which face the north. It reminded me more of Messrs. Trask & Bacon's Philadelphia light than any I have seen. M N is a "sunshade," erected to protect the skylight from the

near as he can to perfection, and third, as full as he could be of that indescribable feeling which all must attain if they would excel. Works of art are scattered and hung all around that he and his assistants may study them, obtaining an idea here and another there that will serve them at some time or another. For the same reason he

subscribes for all the illustrated newspapers in order to study the pictures. He said, "In the one I may find an idea for myself; in another something useful for my retouchers, and in all something of service to my printer, or pupil, or other assistants." He truly said, "The skylight construction is

raphy, is interested in its progress, and will do anything to advance it. I found in him a kindred spirit, and tried to induce him to come to America. Two examples of his work have been given you in this magazine, and I hope presently you will have some more.



not the thing. It is the good quality of the light from heaven itself. Give me that and I will do all the rest, even without any studio. If the light is not good, I dismiss my sitter, and wait until it is good; or if they cannot wait I ask them to come again. If they cannot do either, then I request them to go to another photographer, as I will not willingly make a bad picture. With me it is all a matter of feeling, and I cannot work without it. One cannot impart this to another or hardly describe it. An expert will go over a number of examples of cloth and tell you their value, but he cannot tell you how to do it." It must be acquired by study and practice, and I guess once in awhile it comes naturally. Mr. Luckhardt examines and studies each negative carefully before dismissing the sitter, and if it is not up to his ideas, another trial is made. I wish my readers could all enjoy the opportunities that I enjoyed of seeing him at this work. It was a profitable pleasure which I wish I could dispense to you as abundantly as I received it. I hope the day will come when we will have him in person at one of our annual exhibitions, and then we can quiz him all we have a mind to, for he is very amiable, and withholds nothing from those who desire to improve. He loves photogA very flourishing photographic society exists in Vienna. Mr. Luckhardt is the secretary, and the life of it. Extracts from its minutes are published in this magazine from time to time. I had not the opportunity to attend one of its meetings, nor to visit many of its members, for the simple reason that I went to Vienna to see the Grand Exposition, and had to make many other pleasures all around give way to its demands.

A very strong organization was formed for making photographs of the Exposition, and some very elegant things have been produced. I shall probably refer to this matter again presently, in another connection.

Photography seems to be well patronized in Vienna, and the work usually done is of a high degree of excellence. I wish I could have seen more of it, but I was on a short furlough only, and just saw enough to tantalize me into a desire to go and see more. Let us leave photography now, and make our last visit together to the Grand Exposition.

The issues of this magazine, for a good many months to come, could not hold all I would like to tell you of what I saw.

I went up on the dome one afternoon, and had a grand sight both in and outside

of the building. The view from the outside was clearer than when we were at the Gloriat, and I had a good sight of Vienna and its environs. It is a great city. The "beautiful blue Danube" could be seen for miles, and the mountains, with the convents on their summits, aided in making up a grand scene. The ascent to the dome was made about half way by means of an elevator, and then, stepping from the elevator, we came to a fine gallery, which encircled the interior of the dome, and around which we could walk and see the wondrous sights From this we step outside, and clamber up a winding stairway to the top, where there is also a gallery all around the dome. The world outside having been seen, we came down again to the inside to look and wonder, and wonder and look at the world inside. The sounds that came up were as wondrous as the sights. A great organ was being played, and soothed the feelings, already excited and overcome by the scene, with its sweet music. Then the rush and roar of the great fountain in the centre; the noise of the thousands of people walking to and fro; the ringing of great bells; the bewitching show of the elegant goods on exhibition, with their many colors and tints, made up a pieture indescribable, but never to be forgotten,-indeed, a world within a world, seen from above. After descending, we took a glass of soda-water at the American restaurant, and then proceeded, in the two hours that were left, to make our last impressions of the Weltaustellung.

First, through an entire mile of moving machinery in a building by itself, and then through the main avenue, taking a hasty glance at the beauties on the way back to the art department, where we wandered among the grand collection of pictures again, until the great fog-horn, attached to a lighthouse outside, warned us that it was six o'clock, and that we must go. 'So glancing once more at the lovely statuary, and arming myself with a couple of pounds of catalogues and a few of the photographs of the Exhibition, I turned my back to it, and then took a stroll among the outer attractions.

First, something to eat. You enter a restaurant, and a "kellner" (waiter), in

the course of a few minutes, comes to you, if you call him loud and often enough. He takes your order for, say bread, meat, and tea. He goes and tells another "kellner," who, after a long wait, brings you a plate; another wait, and a cup and saucer; another wait, and some brend; then, if you are patient, you get a plate and a cup for your friend. Further patience is rewarded by your meat; and, by the time you are done, if you cat with a thankful heart, your butter comes for your bread. Bread being all gone, do not ask for more, if you ever want to get away from the place. After you are done, if you are particularly and remarkably patient, in some time the "zahl-kellner" (pay-waiter), comes and makes out your bill, lets you pay, and, thank heaven, lets you go.

But I cannot begin to give you any adequate description of the world that seemed to be represented by sample at this place. It was a Bedlam and a Babel, beautiful and bewildering. The last sight of it I took with the good Vogel, sitting at the door of the Swiss restaurant. We had already luxuriated and feasted among the Turks and the Persians, and the Hungarians and the Austrians, and the Egyptians and the Armenians, and who not; and now, as we sat upon a rustic bench at the door of a little Swiss cottage, listening to the rude music inside and eating our cheese, we took our last glimpse of the greatest scene our eyes had ever beheld. Around us was a pleasant little grove. In the distance we could see the Egyptian temple and the Persian palace with the Turkish minarets standing out against the sky. All around were the buildings from Japan and China and the Carpathian Mountains and everywhere else, making up a scene I shall never forget. The great dome stood up above all and over all, now closed and asleep, with its long wings on each side, at rest.

The sun went down with gorgeous clouds attendant; and thus ended our visit to the great Vienna Exposition of 1873.

The next morning early we said "Good-by, Vienna," and at 7 A.M., I was comfortably seated in an apartment car with Dr. Vogel, on the way to Venice, via the Semmering Railway. Oh! ye landscape photographers,

how I wish you could take your hungry cameras to this delightful region. It was an all-day ride, each mile a wonder. Twenty-five miles of this railway cost \$7,500,000, including in that distance fifteen tunnels and fifteen arched bridges. every twist and turn we climb higher, and new beauties are presented. Each moment it looked as if we were going to be plunged headlong, either down into the deep valleys or into the face of the mountains ahead. On and up, up, UP, we go, wondering how we are ever to get out of this wild winding way. The valleys are richly cultivated, and the hills are topped with churches, while some of the most inaccessible crags bear ruined castles upon their brows.

Swiftly we go along, seemingly regardless of the fact that the grade ascends one mile in forty. Now over a beautiful viaduct 900 feet long, and the engine stops to breathe as if preparing for a hard plunge through a tunnel ahead. Down 540 feet



Edel weis! Frieshes wasser!

below is the village of Gloggnitz. Before we turned the last curve a few moments ago it was opposite us on the left, and away above us. While we rest the quaintly dressed little girls run along by

the train with a bottle of water in one hand and flowers in the other, crying eagerly, "Edel weis! Edel weis! Frieshes wasser! Frieshes wasser!" We patronize the little Alpine merchants, and then struggle on. The pyramidal peaks grow higher as we approach them, but they must be mastered. Tunnels and bridges, bridges and tunnels quickly succeed each other. One of the latter 3000 feet long is on the very verge of a precipice, and here and there is broken through, and lets in the light. Soon we are at Semmering 2892 feet above the sea level. We avoid a 300 feet ascent by scudding through 4500 more feet of tunnel, and come out at the other end into Styria. The country begins to look like America, but the peasantry make us feel that we are in a foreign land, for their picturesque dress and their strange ways are all new to us, although we see a little of all nations at home. Towards evening we enter the Slavonic region, and lo! we see the Julian Alps!

They are muffled by great banks of clouds about their necks, but their snowy caps catch the crimson rays of the setting sun and present a scene of grandeur such as Dr. Vogel says he never saw them present before, and he has been there six times.

About dark we reached Adelsburg, Austria, a curious old town, whose attraction is an immense grotto, stretching two and a half miles under the earth, and divided up into beautiful chambers and halls. largest chamber is 112 feet high, 660 feet wide, and 665 feet long. It was lighted with 1800 candles for our benefit, and as we marched long amid the stalactites and stalagmites, following the blazing torches of our guides, the Poik River rumbled through underneath, and made the music for the occasion. Mightier pens than mine have described this great work of Nature, and I won't try it. The next day we journeyed on to Venice.

Class in Landscape Photography.

The suggestion we made last month to the effect that those interested in this direction should unite in discussing through this column the best methods of working, and endeavor to improve themselves in this branch of our art, has been well received, and a number have signified their interest in it.

The subject for consideration this month is suitable apparatus for the work to be done. One lens, or one pair of lenses will hardly answer for the practical photographer, as a picture may often be made with a short focus lens that could not be got at with one of long focus. An instantaneous view may also be made with a quick-working lens that could not be made with one requiring any length of exposure. So we will mention briefly some of the best lenses and the style of work they are adapted for.

The Morrison wide-angle view lens, for which Scovill Manufacturing Company are agents, is very highly spoken of, and is used by many of the best photographers. It embraces an angle of 90°, and is suitable for views in confined situations, such as buildings in the narrow streets of the city, and often in deep ravines where it is desirable to get as near the view as possible. The Globe and Zentmayer lenses are of about the same capacity of the Morrison, and both large and small sizes are excellent lenses. They work well either for views or copying.

The Ross lenses in "doublets" and "triplets" are constructed for various styles of work, but those particularly adapted for outdoor photography are very quick workers, being just the thing for instantaneous work, such as marine views, street scenes, and photographs of animals. The Steinheil lens is also highly recommended. Both these last are imported and sold by Wilson, Hood & Co. of this city. The Voigtlander orthoscopic lenses are of all sizes, and possess very superior qualities. These, with the Darlot lenses which run from stereo to 4-4 sizes, are imported and sold by Benjamin French & Co., Boston. The imitation Dallmeyer lenses are also very fine, and particularly adapted to quick work. George S. Bryant & Co. are agents for these. Any of these lenses can probably be procured through any stockdealer.

For cameras there is nothing superior to the American Optical Company's boxes, either for large or small sizes.

A S. Murray, of Pittsburg, says he is an amateur but a "great lover of the art." He is using a pair of imitation Dallmeyer lenses, and has succeeded very well. He has recently "purchased one of those beautiful stereo boxes of the American Optical Company's make, which he considers a perfect thing both as to beauty and usefulness." He is also having a dark-box made which we hope he will describe to us next month. We are glad to enrol Mr. Murray as one of our members.

D. E. Smith, of Oneida, N. Y., exhibits some specimens of his work in outdoor photography. He says he intended to purchase a stereoscopic outfit this season, but shall-content himself with a quick-working half-size Peerless portrait lens, and a Victoria box for 5 x 7 plates. Mr. Smith is

also an amateur, but shows a good spirit when he says: "If I can't have the best conditions I will not say I will not do anything, but try to do the best I can under the circumstances. And I intend to make some good pictures too if I have not made a brilliant beginning."

Mr. Stewart Merrill exhibits some very creditable views of Fort Riley, Kansas. "One year ago," he says: "I knew nothing at all of photography, but by constant reading and some little practice, I have a few ideas about it now." He uses a very acid bath, and the plate from which one of the views was made, he says, "was in the shield over an hour." "To preserve the plates in hot weather, I use a piece of thick blottingboard, wet on one side only, and that side next to the glass."

Mr. J. W. Black, of Boston, in Mosaics for 1874 says: "To make a view away from the rooms with a tent, or otherwise with as little trouble as possible, I first take my bath, top to screw on (an acid bath, of course, but less so than for room work), next my box with the lens adjusted so as to move both ways. My camera box contains the ground-glass, holder, dark cloth, and a grooved box for the negatives. The glass I have done up, four in a package, albumenized, ready to coat with collodion.

"I have a dark-tent for large plates, which is amply large to stand up in, and plenty of room to coat plates of any size. It takes about five minutes to set it up and put it in working order."

These suggestions in reference to apparatus, from one of the best photographers of this country, may be practiced with safety. There are further bints as to Mr. Black's methods of working, which we will give to the class under the proper head.

We cordially invite all interested in landscape photography to write us their methods and experiences, formulæ, &c.

The subject for next month will be bath, collodion, developer, &c, with methods and conditions of working.

Do not forget to send some of your pictures to Chicago to help make the Exhibition what it should be—and go yourself.

OUR PICTURE.

In the department of groups there have been very few contributions to our journal, and we are glad to present you one this month of a picturesque and novel kind. It was contributed by L. G. Bigelow, operator with John F. Nice, Williamsport, Pa. Mr. Bigelow has taught us so many excellent lessons in his Album of Lighting and Posing (a work by the way which all workers should have), in the management of single figures, that we are very glad indeed to be able to present you a specimen of his work in the group department. It is full of useful lessons if you will but carefully compare and study it with the instructions. Mr. Bigelow in sending us the negatives, says: "It is difficult to apply art rules in making up photographic groups, from the fact that in art compositions there is one or more central or important figures to which all the others are secondary and supporting; while in photograph groups for portraiture all are supposed to be of equal importance, and individuals must not be slighted pictorially or the sale of the picture is assuredly lost; for this or that figure is not as good as its neighbor. In genre compositions of course we are not limited in this direction, but our greatest obstacle is to group our subjects in such manner as to gain perspective, and overcome the appearance that they are placed in a line like soldiers on dress parade. I know of no way by which perspective may be obtained better than by placing in the foreground low objects or pieces of furniture which tend to break up the line appearance and also give depth to the picture. All ambitious photographers should know what constitutes angular, pyramidal, and circular grouping, for otherwise many mistakes will be made which this knowledge would have prevented. Special attention must be paid to side lines, or those lines which run parallel to the sides of the picture. Break these lines all you can. For instance, if a chair is placed near the margin of a picture, set it with the back toward the centre, or if turned the other way, be sure to set some lower object between it and the margin, and near the chair; which you at once see breaks up the effect of parallel lines formed

by the back of the picture and the margin line. If a curtain were draped just back of the chair it would do just as well to break the lines mentioned. The lines of a curtain should be draped from the margin toward the centre of the picture, and so in principle must be the arrangement of all accessories in photography, portraiture or grouping. All these points are told you in detail by Mr. E. L. Wilson, in his lecture on the 'Management of the Lines' delivered at the Buffalo convention. Refer to it.

"The formula is the same as given in my Album of Lighting and Posing.

COLLODION.

Alcohol,					1 (unce.
Ether, .					1	"
Iodide of		5 g	rains.			
Bromide of Cadmium, .					$2\frac{1}{2}$	44

DEVELOPER.

Iron, .			15 grains.
Water,	,		1 ounce.

"To eight ounces of solution add about one ounce of acetic acid."

The subject of this picture is "Dressing for the Masquerade,"—the centre figure representing the "Vivandiere," and the others the "Huntress" and "Curiosity." The group is a very pretty one, and the composition and lighting very creditable. The chemical effects cannot be easily excelled. The prints were made by Mr. William H. Rhoads, Philadelphia, on the Albion Albumenizing Company's paper. They were enamelled on Mr. W. G. Entriken's new and beautiful oscillating enameller—the best of its kind we have seen to produce the desired result.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

A FEW days ago I received a letter from Mr. Pettemans, one of the agents who make it a business to bring to notice foreign processes and products, in which he invited me to inspect, in his establishment, specimens of neo-oleo-painting. I availed myself of this invitation and I saw a numerous collection of oil paintings, copies of pictures, portraits, groups, &c., of all sizes. At a glance one could see that if these pictures

possessed no artistic superiority, they at least were on a par with those made in the ateliers of photographers, where the image is transferred to canvas in order to be painted in oil. I did not see here anything that appeared to me very new, but Mr. Pettemans having offered to make one of these pictures in my presence, I must admit that I was much interested in the operation. Here is exactly what he did. He took a positive print on ordinary unsized albumen paper and placed it on a retouching glass (sterolor), face downwards. It was the portrait of a man, album eard size, rendered transparent similar to an image on waxpaper. He then opened a box in which were a dozen of those small metallic tubes containing the oil colors used by painters, a poreelain palette, a few fitch brushes, and two vials, one full of the liquid in which is first plunged the images to render them transparent, the other containing picture varnish. The operator placed on the palette a little each of brownish-red, blue, darkbrown and prepared pink flesh colors, then on the end of his brush he took a little of the first tint and put some of it on the back of the image in the places corresponding to the cheek bones, to the lips, and the shades in general. He operated in the same manner with the blue, which he applied under the eyes, around the outlines of the cheeks in the half tone; he laid on liberally the dark-brown in the place corresponding to the hair, finally on the whole of the face and over all the tints already used he spread the flesh color. He then removed the print from the glass, turned it over, and I saw a modelled painting with a proper gradation of colors, exactly similar to those that I had seen exposed in the gallery through which I had just passed. The operation had not lasted five minutes.

It is certainly not the first time that prints have been colored on the back so that seen by transparency they present the aspect of paintings, the photographs forming the drawing and consequently the resemblance, if it is a portrait; but the former method required the hand of a more or less skilful artist. What is truly original in the process of which I speak, is that it is no longer necessary to know how to paint or even to

draw to apply it; any ordinary workman, a child even, can perform it successfully. The tubes containing the colors are numbered, and it suffices to know that such a portion of the face corresponds to such a number, to make use of it properly, and this is learned in a lesson. It is the flesh color, more or less light, yellow or red, and which is spread finally on all the other tints, which gives the particular character of the carnation, according to the person who has posed.

I must add that when the colors are dry the print is laid upon canvas and pressed, so that the paper is moulded on the tissue, reproducing the hollows and reliefs, so that the color appears to be really on the canvas itself; varnishing ends the operation.

I inclose in this letter a small specimen of this process: it is the portrait of Madame Judie, the singer, so much liked by the Parisian publie; she is represented in one of her costumes in the piece called "La Timbale d'argent." You will thus be enabled to judge of the effect that can be obtained; it is not art, but it is clearly a very ingenious process, offered to all photographers, to satisfy those customers who desire to have portraits painted in oil. The invention consists in the application of the colors, which mix and combine in such a way as to form a homogeneous whole.

About ten years ago a photographer newly established in Paris, Mr. Liebert, brought to notice a solar camera without reflector. very simple in its construction, and which had at that time a great deal of success. A short time afterwards he published, under the title of Photography in America, a work in which he gave the different processes used by him, and which he had learned to put in practice during a long sojourn in the United States. The book was appreciated, and the author, who was a man of great intelligence and rare activity, soon took rank among our first portrait photographers. To-day his establishment is one of the most in vogue in Paris, and it must be said also one of the best appointed. All luxury is banished, but everything is so arranged as to facilitate the work. Mr. Liebert is essentially a practical man, which in no manner prevents him from being an artist.

His establishment is not located in a large building like those of Nadar and Wallery, but nevertheless he occupies in one of our finest quarters ("Rue St. Lazare," near the new opera house), a building specially constructed for him. The ground-floor opens on the street and is composed only of a vestibule forming an exhibition-room; all the salons and ateliers are on the second floor and en suite. Photography reigns here supreme, and the eye seeks in vain in the frames which everywhere cover the walls, other works than those of the light.

The glass-house is remarkable for its size; it is not less than 12 metres (39 feet) long, by $6(19\frac{1}{2})$ feet in breadth, and 4.50(15) feet in height. The general appearance of this gallery is the same as that of Reutlinger's, of which the Philadelphia Photographer has given an interior view. The roof is inclined at an angle of 35°, and has glass sashes covering a space of 8 metres (26 feet), as also has the side of the gallery which faces the north. All these sashes have thick blue glass, except the first four rows at each extremity, and a row about 3 metres $(9\frac{3}{4} \text{ feet})$ wide at the top of the roof in that part adjoining the wall. As the ground-glass placed in that portion in which the sitter is posed diffuses the light sufficiently, Mr. Liebert does not use, as Reutlinger does, side screens which raise or lower, although this idea is a good one.*

Among the apparatus and accessories of American origin used by this skilful photographer, the conical background for medallions lighted in the Rembrandt style, may be classed with those that appear the most ingenious. It is a kind of large funnel, closed and widening at the mouth, made of tin painted gray, that he places behind the sitter, and on which the light strikes in such a manner as to still further increase the effects of this style of lighting.

Mr. Liebert, who makes many enlargements, uses exclusively for that purpose the solar camera without reflector, of which I have already spoken. He also makes use of an apparatus, of which he is the inventor, to obtain from small transparent positives

I think you will agree with me that the specimens that adorn this work are very curious in every respect. Printed by the Woodbury process, they are accompanied by a heliographic plate by Rousselon, all coming from the ateliers of Goupil, which I intend to describe in another letter. As may be seen from the remarkable portrait placed at the commencement of the volume, Mr. Liebert is still a young man, being but very little over forty, but his life has been a varied one. When an officer in the navy he travelled a great deal, and he spent several years in California at the time of the gold fever; he then resided in the United States some time and became a naturalized citizen. He had come on a simple business visit to France when he made up his mind to remain there and take a wife. He is well informed, intelligent, very active, and very industrious. After the sad days of the Commune, when Paris was still smoking, he undertook to reproduce all the ruins that the siege of the Prussians and the bloody insurrection had made in the unfortunate capital. Notwithstanding countless difficulties, he succeeded in a few days in obtaining more than three hundred negatives, from which he has made an album that will be for the history of this unhappy period a record of inestimable value, and I may add, that all the sovereigns to whom the artist bas sent a copy of this album,

on glass, enlarged negatives which require no further retouching. The little positive used in this case is made upon opal glass prepared with chlorided collodion. All the instruments and all the processes used by Mr. Liebert are described in detail in the Manual of Practical Photography, which he is about to publish, and of which he has requested me to send you one of the first copies furnished by the printer. Although he has preserved the title of Photography in America, and announces it as a second edition of that work, the present volume is in reality full of new matter, as you will see. The author writes to me that he would consider himself very happy to have you make such extracts from his work as might prove useful for the Philadelphia Photographer, "which he reads monthly with a very great deal of interest."

^{*} The side cartains are blue and white, and move in the direction of the length of the atelier.

have conveyed to him the acknowledgments of their satisfaction. Mr. Liebert may be classed among the men in France who have received the largest number of medals and decorations. He ranks as one of our most skilful and practical photographers.

All the Parisian press was invited a few days ago by Nadar to assist at a very curious experiment that he wished to attempt. He intended to ascend to a certain height in a captive balloon, and reproduce by photography a portion of the panorama which unfolded itself beneath him. It is not necessary to say that the views were to be taken instantaneously. Nadar has already made a similar attempt, and the picture that he obtained is still in his atelier, where I recently examined it. He desired to demonstrate the utility of this application of photography in case of war, and even in time of peace, for the making of surveys, the projection of plans, and for all those topographical works which require so much money and time by the processes ordinarily employed. Photography would do away with the preliminary triangulation based on a mass of trigonometrical formulæ, dispensing with the use of theodolites, alidades, graphometers, &c. It would no longer be necessary to drag the chains through fields, vineyards, and swamps, and it has been calculated that five hundred geodesic photographs daily, each embracing about four square miles, would give the general plan of France in eighty working days. It was to prove that this problem was capable of realization that Nadar wished to make the experiment of which I have spoken.

Unfortunately a very violent wind has prevented him from making the ascent. Let us hope that at some future time he will be able to accomplish his design.

NEXT month, in the July number, we expect to commence with the prize pictures, and shall issue those by Bradley & Rulofson, of San Francisco, to whom the medal was awarded. The whole set we now have ready, and commend them to the attention of all who wish to improve. The money paid for a set of these pictures will be well invested, and we want to see them in the hands of every photographer, because we are sure they will benefit all who study them.

GERMAN CORRESPONDENCE.

The Transit of Venus.—Observations on the Contraction of the Collodion Film.—Coating Plates with India-rubber.—The Morphia Process.—New Albumen Paper Company.

THE summer advances, and the nearer the term approaches for the great astronomical event of this year, the more zealous are the preparations carried on in all the civilized countries of the world for the proper observation of the same. Here also trials for photographing the sun are in progress, and many a photographer who hears of it puts to himself the question, why are so many experiments necessary? photographing the sun is an easy matter. This is very true, nothing is easier than taking a picture of the sun, but the matter assumes an entirely different aspect when a picture is to be made which admits of very exact measurement, for in this case the pictures themselves have to be mathematically correct, and most photographs are in this respect deficient. They cannot be mathematically correct, because, 1. Most lenses distort a little. 2. Because the collodion film by the developing, intensifying, drying, and varnishing processes, becomes somewhat changed, and the original picture is altered in its proportions. This change in the collodion film makes all measurement illusory, no matter how small it may be, for the question is to measure fractions of the seconds of an arc. If, for instance, we take the size of the whole sun, equal to 1800 seconds, and we take a picture of four inches diameter, then one second is equal to $\frac{4}{1800} = \frac{1}{450}$ inch, but the intention is to measure $\frac{1}{10}$ of a second $=\frac{1}{4500}$ inch. How is this possible if collodion contracts $\frac{1}{600}$, as Pashen has demonstrated, or in other words, seven times as much as the size which is to be measured.

It is a question of the utmost importance to find a film which does not contract. Rutherfurd, the celebrated astronomer and photographer, has published also his observations on the contraction of the collodion film; according to him the matter is not as bad as represented, it amounted to only $\frac{1}{24000}$. This surprising discrepancy in the

statements of Pashen and Rutherfurd induced me recently to investigate this subject myself, and I found that the contraction varies considerably with different samples of cotton. There are samples of cotton which contract very much, while others possess this quality in a lesser degree. I found that thick collodion contracts the most, while the limpid ones much less. Of all the kinds which I have tried, Schering's celloidin-collodion contracted the least.

The contraction varied also with one and the same sample, according to its concentration. The same collodion which, with two per cent. of pyroxylin, showed a contraction, did not show any with one and a half per cent. If no celloidin is to be had, it will be necessary to employ a diluted collodion.

Fothergill's dry-plate process has been proposed for taking the pictures of the transit of Venus; it is said to furnish very stable film. The stability, however, is not due to the process, but is owing to the small amount of cotton present in the collodion, for the collodion which is employed in this process contains but 0.9 per cent. of pyroxylin.

Still another point exercises an influence, i. e., the adhesion of the film to the glass. When the film is very firm, the adhesion is slight, and when the adhesion is slight there is danger of displacement. When, for instance, the film becomes detached from the corners of the glass during the washing, and water gets between the film and the glass, the former will become changed in shape; the same result follows when the film becomes in any part of it broken or perforated. Every means which increases the adhesion of the film to the glass lessens also the distortion, and vice verså.

Hence albumenizing the plates before collodionizing is beneficial as well as coating with caoutchouc, while on the other hand, gum substances, when placed upon the film, become detrimental, for these cause a raising of the film during development, and hence distortion, and it follows that all the dry-plate processes in which gum is used as a preservative are not suited for work of this kind; those who desire to employ a dry-plate process should select one in which the preservative, after having

been poured on is washed off again, as, for instance, with albumen, or where the preservative is so much diluted that it cannot exert an injurious influence; very suitable for this purpose is pure morphia (not acetate of morphia). One gramme of morphia, when boiled with 1750 grammes of water, yields a preservative which makes a washed iodide of silver plate very sensitive, without exercising any injurious influence on the stability. I have tried further to find out what influence an alkaline developer exercises on the film. It has often been stated that an alkaline developer loosens the film and causes contraction. This, however, takes place only when a gum is on the film, otherwise, the alkaline developer does not affect the film, and is even in some respects preferable to the acid developer, for when the collodion film is treated for a long time with pyrogallic acid it will always contract, as is readily seen when we intensify with pyrogallic and silver solution.

The alkaline developer is, of course, only suitable for certain plates (chloro-bromine process); the preparation of the plate is not a success in everybody's hands.

I hope that the hints which I have given in the above lines will not be too late for the Venus expedition; perhaps they are important also for the preparation of all plates where exact measurements are necessary, as, for instance, the reproduction of cartoons, &c., &c.

I have spoken above of caoutchouc solution for coating plates, and will mention now how the solution is best prepared. One part of finely cut india-rubber is dissolved in one hundred parts of chloroform. It takes two or three days until the solution is completed; one part remains undissolved and floats on the top; the clear solution is drawn off with a glass tube, and is diluted with ten times its volume of pure and very volatile benzine. The solution is placed on the cleaned, dried, and dusted plate before coating the same with collodion. The plates may be kept for a month in a place free from dust.

The morphia plates which I have mentioned above deserve particular attention on account of their sensitiveness. It is not at all difficult to make morphia plates

which are nearly half as sensitive as wet plates, but the most curious part is their sensitiveness to color. While ordinary bromoiodide collodion plates are sensitive only as far as green (beginning from the violet of the spectrum), morphia plates show a sensitiveness which extends as far as the red and

This circumstance is of great importance for photographing the sun, for the edge of the sun emits relatively more reddish-yellow and green rays than the centre, and with ordinary collodion the edge appears often underexposed. Morphia plates, however, do not keep long; already after four days the sensitiveness begins to diminish. This has, of course, nothing to do with photographing the transit of Venus, as the day when it occurs is well known.

The morphia process which I now practice is as follows:

(a.) COLLODION.

Bromide of Cadmium, 1 gramme. Iodide of Cadmium, . . 25 grammes. Alcohol, . . .

Filter and dilute with three times the volume of plain collodion containing two per cent. of cotton.

(b.) NITRATE BATH.

Nitrate of Silver, . . 100 parts. 1000 " Water, . . Iodide of Potassium, .

(c.) MORPHIA SOLUTION.

One gramme Morphia boiled with 1750 cubic centimetres of Water for one hour.

(d.) PYROGALLIC SOLUTION.

Pyrogallie, 1 gramme. . . 10 grammes. Alcohol, .

(e.) CITRATE OF SILVER SOLUTION.

Citric Acid. . . . 1 part. Nitrate of Silver, 1 " . 50 parts. Water, . .

(f.) Fixing solution as usual.

The plate is collodionized and placed for at least three minutes into the silver bath; it is afterwards dipped in distilled water and well washed. It is next placed for three minutes into the morphia solution and dried.

For the purpose of development, the plate is placed into diluted pyrogallic solution.

Pyrogallie Solution, 1 part. Water, . . . 20 parts.

The picture appears feebly, the plate is taken out and developed with pyrogallie, to which very little silver solution (e) has been added.

If the plate has been overexposed it is advisable to take more silver solution. The development progresses very slowly; only after all the details have appeared more silver solution should be added to the intensifier.

In conclusion, I have to communicate to you some important news. The eight or ten different establishments of Dresden for the production of albumen paper have been consolidated, and form now one single manufactory. The enterprise is a stock concern. We will therefore in the future only have one source in Dresden from which we can obtain albumen paper, and the factory has only one competitor in Germany, namely, Trapp & Munch, in Friedberg (Hasse). It is said that the principal party which supplies plain paper (Blanchet freres in Rives) is interested in the undertaking. This event may become of great importance for photography. If a factory which furnishes such an important article as albumen paper has no competitor it will be able to dictate terms. There are, of course, other establishments outside of Germany which manufacture albumen paper, but none of them are so extensive as those of Dresden. Of the fifteen hundred reams of paper manufactured weekly by Blanchet freres in Rives, one thousand go to Dresden for the purpose of being albumenized; the balance is distributed through the other states. At present we have, besides Blanchet, only one factory where plain paper is made, namely, the one of Steinbach in Malmedy, where the Saxe paper is made. So far, this paper has been considered inferior to the Rives paper; perhaps the new arrangement will give an impulse to his establishment, for I should feel very sorry if we were dependent on one establishment for the supply of plain paper.

Yours, truly,

Dr. H. Vogel.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

Eliminating Hypo from Negatives.—Another Novelty in Dry Plates.—Additional Prizes by Mr. Crawshay.

Eliminating Hyposulphite from Negatives.—One of my correspondents, Mr. Gregson, sends me details of a method he has employed for removing all traces of the hypofixing solution from the negative film. He says:

"Many of your readers have, I presume, been exceedingly annoyed by the loss of valuable negatives by crystallization, that from haste or other causes have had insufficient washing, after fixing with hyposulphite of soda, both before and after varnishing. Sometimes it is years before this is perceived. It generally first shows itself in the thick edge of the film, where a decomposition of the varnish shows the presence of the enemy. Sometimes it appears in small points over the negative, spoiling every print, for which the paper is often blamed, and which revarnishing will not always remove.

"I have for some years used the following method of decomposing the hypo in the film, and have not lost a negative from crystallization since. My immunity from the cracking of varnished films of late I partly attribute to this method. Make a stock solution—

For use, to one part of this add four parts water. Wash the negative as usual, and pour on this solution similar to developing, when, if hypo is present, a milky precipitate is produced, and, on returning it to the developing glass, the deep sherry color which it has will be found to have disappeared A second application, after slight washing, will be found to retain its color. After a rinse to remove the iodine water, the negative is completely free from hyposulphite, and no fear need be entertained of crystallization, either before or after varnishing.

"I should state that this makes the negative more dense, the iodine exercising a powerful toning action; but the half tones are equally strengthened, so there is not the risk of hardness being produced as when an intensifier is used. This intensification may be carried still further by exposing it to the sun's rays before drying.

"I have found no change of intensity on varnishing, nor after being put away for years; neither is there any contraction of the film from its use.

"The stock solution is the best plate-cleaner I have ever used; I have not had a single dirty plate since using it. Although iodine is somewhat expensive, it will not be found so in use, as but a small quantity is employed. Once used, it will not be forsaken by those who, like myself, are old-fashioned enough to prefer a clean plate to an albumenized one. It may be used for removing stains from the fingers, which it does equal to cyanide, without its danger; the color of it may then be removed from the fingers by a strong solution of hypo. In fact, it is a universal scouring or cleansing agent for the photographer."

Another Novelty in Dry Plates.—A. correspondent sends me the following details of a dry process in which tobacco is used as the preservative. It is as follows:

Tobacco, 20 grains. Gum Arabic, . . . 10 " Water, . . . 1 ounce.

Boil the tobacco in the water, which you will find to make a saturated solution, and on cooling to throw down a portion of the soluble matter out of solution. Filter, and in the filtrate dissolve the gum. I have found tobacco per se to give good results, but prefer to add the gum when the plates are to be kept for some time.

Additional Prizes by Mr. Crawshay.—Your readers are already familiar I believe with the details of the munificent prizes offered by Mr. Crawshay for large direct photographs. That gentleman has just resolved to extend his encouragement of photographic excellence still further by offering a series of liberal prizes for landscape photographs, the competition to take place some time in autumn, at the same time as

the portrait competition. A prize of £25 is for the best three landscapes of any size not less than ten inches by eight, and a second prize of £12 for the second best three of similar proportions; also a prize of £10 for the best landscape of any size, and a prize of £5 for the second best landscape of any size. Mr. Crawshay is desirous that each landscape shall be a genuine view of the scene it professes to represent, and not a patchwork of many places. But he does not bar such combination as may be desirable to secure either higher truth or pietorial effect. If the subject be one in which justice cannot be secured by the use of one negative, several negatives may be employed, so that portions of foreground, figures, clouds, &c., may be produced on separate negatives, and secured in the picture by combination printing. The competition will be open to photographers in all parts of the world; and as the wide conditions give facilities for almost every landscape photographer to compete, it is hoped that a goodly number will enter the lists. The size of the competing pictures for the first prize is within the power of most photographers, whilst for the next no size is laid down. Supreme excellence alone will take the prize. The precise time and place of the competition will be duly announced when decided.

SOCIETY GOSSIP.

CHICAGO PHOTOGRAPHIC ASSOCIATION held a meeting in their room, 158 State Street, May 6th. President G. A. Douglass in the chair.

After the reading of the minutes of the last meeting, upon motion of Mr. Green, the meeting adjourned for one week, in courtesy to the visitors, among whom were Messrs. Abraham Bogardus, President of the National Photographic Association, and Edward L. Wilson, Permanent Secretary, and editor of the *Philadelphia Photographer*.

General Meeting.—Mr. Douglass called the meeting to order, and Mr. A. J. W. Copelin was called to the chair; Mr. O. F. Weaver was elected Secretary.

Mr. Hesler, as Local Secretary, stated the

object of the meeting just formed, to be to consider the subject of the coming Convention. Our very worthy brothers, A. Bogardus, President of the National Photographic Association, and E. L. Wilson, Permanent Secretary, were with us, had come a long way, and they would like to hear from all present in regard to the question. He stated his office as Local Secretary was not one of his choosing, and would very willingly relinquish his claim, but the highest authority had refused to accept his resignation. He had issued a great many letters to the brother photographers, and had received very encouraging replies. At a meeting of our Society some four months ago, the vote being taken, "Do we want the Exhibition to come here," it was decided in the affirmative by a good majority. Called a special meeting 8th of April. A resolution was offered at that meeting, "That the Executive Committee of the National Photographic Association be requested to postpone the Convention being held here the present season, as, on account of our great losses so recently by the great fire, we were not prepared to receive our brother photographers as we would wish to." The resolution was voted down. He had every reason to believe a majority were in favor of taking hold and helping the matter right along. After several times trying, he had finally secured the Exposition building on very reasonable terms, and we would have the finest show-room in America, room enough for all. He introduced Mr. Wilson, who stated, among other things, that he had come West for his own benefit, to be cheered up. Had heard there was great disorder in the camp, but he was very happy to say he eould pronounce it a false alarm. He had visited many galleries through the day, and found the Chicago artists were almost a unit in the desire to have the Convention come here; he would like to call on all, but his time was limited. Five years ago nearly every artist in the United States was ashamed of the work he was turning out, but now it was very different; you are proud of your work and of the name artist. It is one of the results of these annual gatherings. They made photographers feel that they were of some use and of some importance in and to the world, and now they hold their heads up! and they have a right to. In former exhibitions we were compelled to ask an admittance fee, but this time we propose to make it free to all. If the brotherhood take hold of the matter with a will it will be the grandest "show" ever held in America.

Mr. Bogardus being introduced, said: Excuse me if I go back a little ways. Some years ago Chicago put in a claim to have the Convention here, but could not secure enough votes to get it. Later there was a rivalry between St. Louis and Chicago, and as there had been one in Cleveland, which is in this range, St. Louis secured it. Was pleased to hear Mr. Hesler say, "We are outvoted, and we will go with you to St. Louis."

But a short time ago Chicago was devastated by the great fire, now it was up again grander than ever, and where such pluck had been shown, he knew a photographic show would be successful. He did not expect Chicago photographers were going to spend their money recklessly; that is not what is wanted. We want to come here and attend to business. We cannot do too much to build up the trade. In London people were invited to come and sit for their picture, being promised a picture and a glass of beer, or a picture and a piece of pie for a shilling. We did not want to see the business come to that here; we must keep it up some way. Was not necessary to say anything in regard to the benefits derived from attending the Convention; we go there and see something we are not familiar with, and anything that will help us is certainly a benefit. On my way to St. Louis, I met a man in Ohio, who did not even know how to make a medallion picture. He learned how at the St. Louis Convention. I had a letter from him since stating he used to get \$2 a dozen, but now gets \$3. As for him he had learned more in one Convention than he ever had in his room.

In Cleveland nearly the whole city attended the Convention, and afterwards demanded more pictures and wanted good ones. I have served twenty-seven years at the business, and learn something new

every year. Some claimed it was run too much in the interest of the stockdealers. I consider they deserve to make all they can out of it, for they spend a good deal of time and money in the cause, and I like to see them repaid.

Mr. Cross stated that he rose from an obscure village in New England, and was eager and willing to learn; could do so by looking at other work, and certainly the Exhibition would be the place to see it. Then we could test our own work by placing it beside others. This movement cannot fail. No one can doubt the motives of either of these gentlemen—officers of the Association. They were earnest and have proven it by not only giving their time but much of their money.

Mr. Brand said: He would take hold and do all he could. The Convention was coming here, and he really hoped all would help to make it a success.

Mr. Fassett said: He would do all he could to make it a success.

Mr. Mosher advocated the Exhibition, and was bound to do all he could for it.

Mr Copelin being called upon, invited Mr. Hall to the chair, and then cheered the cause on by declaring his intention of lending a willing hand.

Mr. Hall gave his reasons for opposing the Convention coming here this season, and after speaking at some length, it was moved we take the sense of the meeting to find out the feeling on the subject.

Twenty-three voted aye, and two nay—an overwhelming majority.

Mr. Hall moved to make it unanimous. Carried enthusiastically.

Mr. Abbott had opposed its coming here at present, but should bury the hatchet now.

Mr. J. K. Stevens thought the photographers just as well prepared now as they ever would be. Glad to see the good feeling prevailing, and hoped all would take hold, and do the best they could. He should lend it all the assistance he could.

Mr. Spencer was not really a photographer, but somewhat connected with, and a lover of, the art. Should help it along.

Mr. Armstrong: I shall put my shoulder to the wheel.

Messrs. W. H. Lathrop, of Lacrosse, J. Adams and G. H. Sherman, of Elgin, S. W. Truesdall, of Kenosha, J. S. Medler, of Woodstock, and L. H. Pitman of Mt. Pleasant, were present, and signified their willingness and determination to lend it all the help they could.

Mr. Brand moved a vote of thanks be tendered our guests, Messrs. Bogardus and Wilson.

Mr. Wilson in reply, stated he came here to be cheered up, and was happy to say he had been, nobly.

Mr. Begardus did not desire a vote of thanks. Was very well pleased to be here, and would bid them all good night.

Mr. Hesler laid a subscription paper on the table, and the chair called upon those who would, to come forward and subscribe to the fund. Upon motion of Mr. Brand, the paper was turned over to a committee of three to have full control of the same. Mr. Hesler appointed as such committee, Messrs. Brand, Mosher, and Copelin.

Mr. Wilson presented the Chicago Photographic Association with an album of the thirty competing cabinet photographs for the Gold Medal prize, for which he received the thanks of the Society.

After further remarks by Messrs. Brand, Mosher, Hall, Hesler, Ormsby, and others, the meeting adjourned.

PHILADELPHIA, May 6th.—The President announced the death of Mr. William Langenheim, one of the earliest daguerreotypists, and an honorary member of the Society, and stated that Mr. Langenheim began to take daguerreotypes in this city about the year 1840 in the Exchange Building. He devoted much attention to the albumen process, both for negatives and positives, and brought his results to a high standard of excellence. His pictures for the magic lantern were unsurpassed, and well appreciated both at home and abroad. Mr. Langenheim was a gentleman of a retiring disposition, and not communicative in relation to his experiments.

Mr. Tilghman, in moving that the remarks of the President be entered on the minutes of the Society in commemoration of Mr. Langenheim, observed that he himself had known him long and well, and un-

fortunately had been the immediate cause of great pecuniary loss to him, by showing him some crude results of his own in the calotype process of Fox Talbot. Mr. Langenheim was so impressed with the capabilities of photography on paper, that he bought from Mr. Talbot the patent right for this country, and expended largely in introducing and perfecting it. The discovery by Le Gray and Archer of the collodion process rendered the calotype valueless. Mr. Langenheim worked out the Le Gray process on albumen to a perfection that excited the wonder and admiration of all who beheld the glass positives he exhibited at the first World's Fair in London, 1851. His micro-photographs have never been surpassed, or even approached.

On motion, the Secretary was instructed to furnish a copy of the minutes of this meeting to the family of the late Mr. Langenheim.

On motion of Mr. Schreiber, Mr. Frederick Langenheim was elected an honorary member of the Society.

Mr. Sergeant read a paper by Mr. M. Carey Lea, on "A New Dry Process."

A vote of thanks was tendered to Mr. Lea for his communication.

The President exhibited a print from a batch of paper which had been kept a month after sensitizing. Also an ingenious arrangement for micro-photography by Mr. Zentmayer.

Mr. Hewitt exhibited some very fine negatives made by a modification of the collodio-albumen dry process, as published by Mr. England in the *British Journal of Photography*, 1867.

Mr. Schreiber exhibited a handsome book entitled "Noted Horses of America," being a series of photographs by himself and brother, all taken from life.

PENNSYLVANIA, PHILADELPHIA.—Mr. Augustus Schwarze was elected to membership.

A committee of five was appointed to draft a form for a protective association.

The subject of enamel pictures excited a good deal of interest, but the attraction of the evening was two of Entrekin's beautiful oscillating enamellers. They were worked in the presence of the members, and the

marvellously perfect finish given to the photograph was sufficient evidence to all of the superior excellence of the machine. Mr. Entrekin has, by his push and enterprise, and his personal attention to the perfect working of every machine, gained the confidence of all who have used or seen them, and is deserving of the success that is sure to come to him.

Ordered that a print from each negative that has won a medal, be deposited with the Society.

In the competition for the medal for the best print, it was decided that no double printing or fancy background should be admitted.

PHOTOGRAPHIC ASSOCIATION OF THE DISTRICT OF COLUMBIA.—There was an unusually large attendance at the May meeting, and the session proved the most interesting of any since its organization.

A valuable paper was read, entitled "The benefit of photographic associations to the profession and to the community at large."

Among the topics, discussed was the following: "Best toning bath for portraits," "Effect of citric acid in the printing bath," "Double iodides in collodion," "Burnished photographs," and various other matters of interest to the profession.

Indiana Photographic Association, May 6th.—The election of officers to serve the next six months was held, with the following result: President, L. D. Judkins; Vice-President, Henderson George; Secretary, J. Perry Elliott; Corresponding Secretary, C. B. Ingraham; Treasurer, Harry Fowler; Librarian, D. O. Adams.

The members present seemed to be shaping their affairs with a view to attending the Annual Exhibition of the National Photographic Association at Chicago, and J. Perry Elliott and L. D. Judkins were appointed a committee to confer with the railroads in reference to reduced rates, and all photographers desiring to join the Indianapolis party are requested to notify the committee at once.

The Secretary said he had come to the conclusion that for large heads or bust pictures, 11 x 14 size and larger, the solar camera was the best instrument to employ, and as there seemed to be a difference of

opinion on the subject, it was proposed, and agreed upon, that "The Relative Merits of Solar and Contact Printing," be the subject for discussion at the June meeting.

THE VIENNA PHOTOGRAPHIC SOCIETY seems to be in a flourishing condition, and the life of it seems to be our esteemed friend Herr F. Luckhardt, with whose work we are all so familiar. Sixty-one members were present at a late meeting. It will be remembered that each year Herr Voigtlander, the famed optician, offers several medals for improvements in photography. A commission is appointed by this Society to examine the claims of competitors and to make the awards. The result for this year is as follows: The gold medal to Herr J. B. Obernetter, of Munich, for his "Process for the reproduction of negatives," which Dr. Vogel has already given us. The silver medal was awarded to Herr B. Johannes, of Parten Kirchen, for "Studies from nature;" a silver medal to Dr. Stein for his heliopticor; and a bronze medal to Herr H. Eckert for improvements in phototypy. Herr Luckhardt spoke in glowing terms of the advantages of Herr Obernetter's process. Among other things he said that he put the process to a severe test, by copying his stereoscopic negatives, which differed in depth, sharpness, and intensity. He could not tell the difference between the originals and the reproductions without marking. A prominent advantage in this process is in being enabled to make soft negatives from hard ones, and vice versa, the prize picture (landscape 10 x 12) being made from a copied negative, the original requiring two days to get one print off, while the copy furnished two or three a day. He concluded his remarks, which were received with great approbation, by stating that there was a little unpleasantness connected with the process, which was, in dusting the plate the manipulator would become as black as a chimney-sweep.

Some effort is being made to tax the photographers in Austria. We join the hope of our friends there that it won't be done. Our own government found that it was a mistake.

PHOTOGRAPHIC SOCIETY OF BERLIN.—Dr. H Vogel, President. C. Quidde, Sec-

retary, presented a negative, which was made by means of a brush or pencil, with India-ink, and notwithstanding the technical difficulties in its production, it is very efficacious and elicited great attention.

Herr Moser exhibited several peculiar stereoscopie views, which were taken against the sun, with a small stop, showing four reflected pictures of the sun one above the other, each larger and fainter than the other, while the sun itself could not be seen on the picture. The President explained the above, which was caused by the reflection of the light inside the tube, which occurs when the sun shines in the lens, and when a small stop is used.

The President showed his practical test for hypo in card-mounts. Herr Reichard asked if there was no way to get rid of all the hypo in the card-mounts. The President stated that hypo was used to remove the chlorine which was used to bleach the paper-pulp. Mounts made of clean white rags contain no hypo. Instead of hypo, the sulphate of soda could be used for this purpose, which is more durable and would not endanger the picture. The manufacturers think it too dear compared with hypo. The hypo in the present mounts can be destroyed by dipping them into iodinewater. Herr Moser asked if hypo was contained in colored mounts. The President has found it in them. He found further in certain blue and green cards ultramarine, a color containing sulphur, which would rapidly destroy a picture. Herr Mosher recommended adding a small quantity of iodine to the starch paste for mounting the pictures. The President states his intention of testing whether it can be safely recommended or not.

Correction.—The formula given in Dr. Vogel's correspondence, in our last number, for the new process of reproducing negatives, should have read grammes instead of grains. Corrected, it should stand as follows:

Dextrin,					4	grammes.
White Sugar	٠,				5	"
Bichromate	of	Amme	niun	a, .	2	
Water, .		1 .	-		100	4.4
Glycerin.				2	to 8	drops.

THE LESSONS OF THE PRIZE PICTURES.

BY G. R. C.

The beautiful set of prize pictures now being published by Messrs. Benerman & Wilson, have a great deal in them that photographers everywhere may profit by if they will but compare and study them. They should not be looked over carelessly, or only with a superficial glance, to commend one and criticize another, but should be read carefully. We may read them as we would a book; to comprehend them is to read them.

We read in them, not only the qualities of artistic skill, or chemical manipulation that was brought to bear in producing them, but we have every man's idea, as far as he could execute it, of a specimen of first-class photography. We seem to catch the thought that was in his mind, and see the purpose he had in view. We can also understand how near the result comes to the standard aimed at. That most of them have fallen short of their highest conceptions can hardly be doubted, for our aspirations are generally far above what we are able to execute.

These pictures have lessons in lighting, posing, expression, composition, and choice of subject. In the first of these, lighting, we find a variety of effects. Some have aimed to secure a soft, harmonious blending of light and shade, while the ideal in the mind of another has been something bold and vigorous. Either of these will be found to have failed in some cases, while those who have taken a middle ground, and sought to combine brilliancy with softness, have succeeded the best.

By comparing one with another these differences are very apparent, and then by comparing again these pictures with our own that we are making every day, we may find it advisable to take a "new departure," that will lead us nearer the right direction than any method we have ever pursued before. In connection with the study of lighting, we are to consider whether the negative was properly timed; whether the detail in the shadows would have been brought out better by exposing a few

seconds longer, or whether the time has been too long, so as to cause flatness on a picture that otherwise would have been well lighted. These are points where we must endeavor to discriminate and judge whether the lighting was really at fault, or the time of exposure was too long or too short.

In posing we are to consider the relation between the subject and position. Does the latter correspond with the former? Does it seem to be the most favorable for the form and features? Is it adapted to the age, style, and idea of the subject, and does it secure a proper balance of lines that give a harmonious support to the whole?

Expression! You may say, what has the photographic artist to do with expression? He has everything to do with it. In this is displayed one of the most subtle elements of his artistic skill. It is not in the severe, grum expression that the artist always fails, but quite as often in the simpering smirk that gives so much of the air of affectation, and is generally the result of that final charge on the part of the photographer, viz., "Now try and look pleasant." comparing the pictures in this respect we can readily detect which is the assumed and which the natural; which is produced by calling the attention of the sitter to the fact that she was sitting for her picture and must not be too serious; and, which by such a manner and method as to take the mind from self, keeping it active with other things, and securing that unaffected, dignified expression, which is always pleasing, and of which we never tire. It is well to notice also how much the position of the eyes affect the expression. This is a study of itself. Life and animation, or the reverse, are controlled very much by the direction given the eyes. In composition, the lessons may be particularly valuable. When a picture is pleasing to the eye, everything seeming to be in keeping with the subject, in lighting, posing, and choice of accessories, then we may conclude that the composition is good, even if we cannot analyze it, and determine why it is so. On the other hand, if a picture appears out of proportion, one part does not agree, or is not in harmony with another, then the composition is at fault. We may be safe in

taking as guides for practice those that please us, but it is well to study why this or that is so, and be able to proceed understandingly. The choice of subject is one of the most important of all, whether it be a simple portrait, or to embody an idea and tell a story. Winter is represented by frosts, cold threatening clouds and a bleak and barren landscape; Spring comes out in gay attire of foliage and flowers, with beauty and sunshine everywhere; so we should choose the subject in keeping with the idea we wish to represent. With this thought in view there is much to learn from these pictures that can be applied to our daily practice, and when once settled upon the subject appropriate to the object of our effort, we may proceed with a good prospect of success in every other department.

As examples for study, or for imitation of their excellent qualities, those to be particularly commended are Nos. 1, 5, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 26, and 29. None of them should be studied only for the purpose of criticism, but their good points should be considered as well, and such use made of the lessons they convey that we shall appropriate and pattern after all that is good, and endeavor to avoid all that is bad.

A set of these prints should be in the hands of every photographer, as nothing so practically educational, and conveying such a high order of instruction, has ever been published.

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues. The fees for life membership will probably be doubled at the Chicago Convention.

All remittances of back dues, and fees and dues for new members, should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia. To Frame Manufacturers.—We are authorized to say that a Gold Medal is offered for the best display of frames at the Chicago Exhibition. Photographers are urged to inform their frame makers of this fact, and as all frames look better with handsome photographs in them, it is suggested that the photographer and the frame maker work together in this matter, and together present the finest exhibition ever held. No restrictions are made as to the style or kind of frames, but the medal is for the best display of frames.

The Regulations for Exhibitors will be found in the supplement. The usual circular giving further regulations, railroad and hotel arrangements, &c., will be issued about June 20th. If you fail to receive a copy apply to us for one.

Pay your dues before you go to Chicago, to save hurry and bustle there, and as an accommodation to the Treasurer.

Where shall the next Convention be ?-A member from the South says: "I am convinced that if the National Photographic Association Convention was held further south next year that it would be greatly strengthened. The meetings have been so far from us that we could not attend. cannot afford to travel the whole breadth of our nation every year; come South." No doubt our good friends in the South could have the Convention there if they would only come to Chicago and say, "Come." The Association don't like to go anywhere unless it is invited, and we have no doubt it is all ready to go South if it is wanted there. Southerners, meet us in Chicago and let us talk it over.

A Change of Officership.—Do not the members of the National Photographic Association think that a change of officership this year would do good? We are not authorized to speak for others, but the President and Permanent Secretary do authorize us to say that it would be a great relief to them to have a rest. Their offices entail more labor and personal expenditure of money than many think of, and although they have tried to serve the Association faithfully for about six years, they are just as well aware as any one else that they have not pleased every one, neither does the Association faithfully for about six years, they are just as well aware as any one else that they have

sociation grow under their hands as they would like, and therefore they suggest that the good of the Association would be enhanced if a change of officership be made. Try and think of it between this and the time of the Convention, and there act upon it.

The Debt Fund.—Amount received the same as reported last month. No additions.

TALK AND TATTLE.

Our foreign medal is likely to be well competed for, since we have received letters from many foreign photographers announcing their intention of sending negatives for competition. Among these are a number whose work shone at the Vienna Exhibition, one of them being from Russia. This is good news for our readers, who will be thus guaranteed the finest possible specimens of photography in our future numbers for some time to come.

The New Association.—In our last Talk and Tattle we alluded to the effort being made to upbuild a new association, whose special object should be the protection of its members from impositions of various sorts. Mr. H. Hannay, Vice-President of the Brooklyn Photographic Art Association, writes us on the subject as follows:

"I wish to correct an error in your May number, when speaking of a meeting in Brooklyn. It was not an indignation meeting against Shaw or any other man-it was a regular monthly meeting of the Brooklyn Photographic Art Association, and the report made was to that society by a committee appointed to report on the Shaw claims." Again, "Also in connection with the meeting you say that it is a penal offence to combine against a United States patent. Now this might lead some to think we had committed this grave offence. We do not mention Shaw in our Association. We combine as men and citizens to protect ourselves against any man or men who do us wrong, and who by money or a knowledge of the general apathy of photographers, hope to frighten them into anything they may see fit to claim from them, whether just or unjust."

Mr. Hannay also sends us copies of a "Report of a Special Committee of the Mutual Photographic Protective Association," which sets forth the reasons for forming the

new association, its object, and a call upon all photographers to join them. Mr. H. J. Newton, 128 W. 43d Street, New York, a gentleman well known to our readers, is the Treasurer, from whom copies of the resolutions

may be had. The new Association has assuredly undertaken a hard work, that of uniting the photographers of the United States, but nevertheless it is one much needed, and we wish it success.

Editor's Table.

A New Book.—We expect to issue during the month a book entitled *The Practical Printer*, by Mr. C. W. Hearn. It is from the pen of a practical man, and we are sure will be found to be a great help in the printing department, which has heretofore been too much neglected.

Our Foreign Medal.—In view of the fact that we shall be very busily engaged with the N. P. A. Convention at Chicago, about the 15th of July, we have decided to extend the time to the 15th of August. This will give our foreign friends an additional month, which we hope will be an advantage to them, and induce an additional number of competitors.

THE HEALTH LIFT.—This is not exactly a photographic, apparatus, but may be of great assistance in conducting the business, as health is the first of all considerations. It is a machine that is intended to take the place of the gymnasium, and by a regular practice of ten minutes daily the health is improved, and in a short time the strength doubled. It is a system of cumulative exercise, which will prove invaluable to any one of sedentary habits. We have one in our office, and our daily exercise on it sets the blood in motion, and seems to give us new life and vigor. (Full particulars in our advertising department last month.)

Wet Books.—By reference to an advertisement, it will be seen that our list of damaged books has been greatly reduced since last month. The few we have left we offer at rates that we hope will clear our shelves within thirty days. Send your orders early.

WE are sorry to announce that our old friend and correspondent, Mr. Charles Waldack, author of the admirable *Treatise* which bears his name, and so well known in Cincinnati, where he has practiced photography so many years, has returned to his native home in Belgium, to remain for some time at least. He has opened a portrait

gallery in Ghent. He says that the status of photography in Belgium is very far behind that in America in every respect. The only mite of cheerfulness we can filter out of this matter of our country losing so good a photographer as Mr. Waldack, is to be derived from the close of his letter, wherein he says: "Now that my time will not be entirely absorbed by my business, I will be able to send you something from time to time for the Philadelphia Photographer." Of course all our readers will join us in saying that letters from Mr. Waldack will be always welcome.

OBITUARY.—We regret to be called upon to record the departure from us of two of the fathers of photography.

Professor Samuel L. Walker, of Poughkeepsie, N. Y., died at that place after a brief illness, on Saturday evening, April 25th, in his 72d year. He was one of the first disciples of Daguerre in this country, and attained great success in the days when the daguerreotype was in the height of its popularity. The Professor was a great lover of nature, and intensely devoted to the art he loved so well. He was beloved by all who knew him, especially those of his own profession. The photographers of Poughkeepsie showed him marked respect, and closed their places of business on the day of the funeral.

The other was Mr. William Langenheim of this city, who died May 4th, in the 68th year of his age. Mr. Langenheim was a native of Germany, and came to this country about forty years ago. He settled in Texas, was under General Houston in the Texan war; was taken prisoner by the Mexicans and confined at Matamoras about a year; was in the government service as clerk in New Orleans and Florida several years, and in 1840 came to Philadelphia, where he and his brother soon after went into the daguerreotype business in the Merchants' Exchange. They were among the first who practiced daguerreotyping in this country, and also first in introducing photographs on paper, for which they bought

Fox Talbot's patent. They were the inventors of the pictures on glass now becoming so popular as lantern slides, and in these have carried the art to a very high state of perfection, particularly in colored work, which they made a specialty, and in which they built up a substantial and prosperous business. Mr. Langenheim was widely known in this city, and his memory will be cherished by a large circle of friends.

WE have before us a notice of the death of Mr. Josiah Brown, of Enst Mauch Chunk, which occurred at that place April 26th, 1874. Deceased was forty-five years of age, and one of the earliest photographers in the Lehigh Valley. He did business in Mauch Chunk for nearly twenty years, and was well known throughout that section as a skilful artist.

Bysiness Changes.—Mr. Willy Wallach, the well-known dealer in photographic papers, has removed to the capacious store, No. 4 Beekman Street, formerly occupied by Scovill Manufacturing Company, where he has added to his full and complete stock, and hopes to receive a liberal share of patronage.

The firm of J. Gurney & Son, No. 108 Fifth Avenue, has been dissolved, and Mr. Benjamin Gurney is to continue the business at Kurtz's old gallery, 872 Broadway. We wish him success!

Messrs. Oscar Foss and A. A. Hickox, of San Francisco, have formed a copartnership, under the firm of Oscar Foss & Co., for conducting the photographic stock business. We hope they will be remembered by the fraternity on the Pacific, and guaranteed success in their new enterprise.

A letter from Mr. W. H. Reckling, of Rome, Ga., informs us that he is about to remove to Columbia, S. C., to take the business of the late Richard Wearn, a member of the N. P. A., deceased. He inclosed, also, a specimen of his work. We wish him success.

The firm of Mote & Swaine, Richmond, Ind., was dissolved March 4th, 1874. Mr. Swaine retires, and the business is continued by Messrs. E. J. & W. A. Mote.

PICTURES RECEIVED.—From Kilburn Brothers, Littleton, N. H., a number of beautiful stereos. "The Old Mill Dam" is a gem, with its miniature waterfall and fairy-like formations of frost and ice. A winter street scene, on the "1st of May, 1874," shows how that hoary individual lingered in the lap of spring. A series of views illustrating the pleasures and toils of making maplesugar. Gathering the sap, boiling it down, and having a sweet time at the conclusion, are all

finely pictured. The last, however, seems the most attractive, where a liberal sprinkling of the fair sex lends grace and beauty to the scene, and each with a dish of the delicious product of the maple, makes one wish he might be there to share the dainty feast. A large number of views from J. Loeffler, Tompkinsville, Staten Island, N. Y., illustrating the scenery of "Catskill Mountain," "Trenton Falls," and "Lake Mohonk," all very fine work. From J. H. Johnson, New Vienna, Ohio, pictures illustrating the temperance crusade. From W. H. Potter, Mansfield, Ohio, some fine stereos; and from Hamilton & Hoyt, Sioux City, Iowa, cards and stereos. Cabinets have been received from F. Gutekunst and F. A. Wenderoth of Philadelphia; J. C. Moulton, Fitchburg, Mass.; Sheldon & Davis, Kingston, Ont.; J. C. Baring, Massillon, Ohio. Cabinets and cards from Sittler & Lanney, Shelbyville, Ill.; and Frank B. Ford, Kendallville, Ind. Cards from C. D. Mosher, Chicago; S. B. Smith, Marshall, Mich.; W. A. Reckling, Rome, Gu.; and J. H. Medlar, Jefferson, Wis. Several 8 x 10 views from Stewart Merrill, of Fort Riley, Kansas, a new beginner, are very creditable.

We have samples of their work from Messrs. Lon M. Neely, Muncie, Ind., and from Mr. J. B. Medlar, Racine, Wis., all showing good progress.

"The Souvener."—This is the name given to a very beautiful style of picture being introduced by Mr. E. L. Brand, of Chicago. It is an enamelled, camoo picture, with a tasteful border, elegantly and tastefully mounted, and very effective. Mr. Brand, we believe, is about to offer presses for their production.

ART WORKS.—In order that the growing desire, which we are glad to see on the part of many of our readers, to obtain information and instruction in the principles of fine art, may be indulged, we have gone to considerable pains to examine and select such works from the catalogues of various publishers as we think are the best adapted to the wants of photographers, and, having classified them, have arranged with the publishers for their sale. A list of them, and a short synopsis of their merits, may be found in our advertising columns, to which all interested will please refer.

THE Interstate Industrial Exposition of Chicago will open September 9th, and close October 10th, 1874. We have before us a programme for this Exposition, giving a list of officers and detailed information for the benefit of exhibitors. The Exposition building has been erected at a

cost of about \$300,000, and it is said to be the largest and best of its class on this continent. (This is the building in which the National Photographic Association Convention will meet in July.) We hope our Western photographers will take advantage of this opportunity to make a good display of their work.

OUR NEW PRIZE PICTURES.—We wish to call attention to our new and fine set of prize pictures now ready. As specimens of all grades of work, and as a guide for those who are trying to improve, they excel anything that has ever been published. They may be had in our new photograph covers (or without), and are in a most convenient and attractive form. (See advertisement.)

GRISWOLD'S COMPOSITIONS should not be overlooked by our readers. Any one can sell them. All should study them, for it is our belief that any one pushing this style of picture, either for the album or the stereoscope, will make them pay. A catalogue of them is given in the advertising pages.

THE INTERNATIONAL REVIEW is a new magazine, issued six times a year, by Messrs. A. S. Barnes & Co., of New York, at \$5 a year. It is devoted to the great questions of our age and country, literary, scientific, social, national, and religious, and has already enlisted a fine staff of contributors. The March number contains two articles very interesting to photographers, "The Transit of Venus," by Prof. J. E. Hilgard, of the U. S. Coast Survey, and "Practical Work in Painting," by Philip Gilbert Hamerton, Esq., of London. We wish we had room to reprint them both.

A CORRESPONDENT, writing us from Massachusetts, says: "I was told in Boston, that when I sent my samples to you, that you would not take any notice of second-class photographers; but I determined to try and see. We want men to elevate our art who are willing to learn, and I am one of them." We are glad our correspondent was not discouraged by the unkind thrust at us, for we are always ready and willing to help every one if we can. We claim to be no help every one if we can. We claim to be no favor it would be to those who needed it most. We want no one to feel diffident about communicating with us on any matter connected with their business.

JUDICIAL PHOTOGRAPHY.—The Legal Chronécle for Ap.il 18th, 1874, Solomon Foster, Jr., editor and publisher, contains a fine photograph of the Hon. Thomas H. Walker, Judge of the Twenty-first Judicial District of Pennsylvania, by George M. Bretz, of Pottsville. Thus we see how photography is continually winning its way into favor and usefulness

Excursion to Chicago.—The photographers of New England, New York, and Philadelphia, and of all other places convenient, are invited to join an excursion to Chicago, leaving Philadelphia the Thursday or Friday previous to the Convention. Chartered Pullman Sleeping Car, special. All intending to go, please address the Permanent Secretary one week in advance.

ART CULTURE. - "A Handbook of Art Technicalities and Criticisms, selected from the works of John Ruskin, and arranged and supplemented by the Rev. W. H. Platt, for the use of the intelligent traveller and art student, with a new glossary of art terms, and an alphabetical and chronological list of artists. New York: John Wiley & Son, publishers, 1874." The nature of this work is so amply described in the title, that there is but very little left for us to say concerning what it is. What it contains is just the very sort of instruction which the advanced photographer of to-day, and the student as well, both want to imbibe until they are full of it. It is a concentration of the best parts of the works of the inimitable art critic, John Ruskin, Esq. One who loves art, and the study of it, cannot turn to a page without deriving both enjoyment and instruction. Both the portrait and the landscape photographer, the negative retoucher and the colorist, will find this work invaluable to them. We shall, with the permission of the publishers, take occasion to quote from it presently, and call more particular attention to its merits. It is most beautifully gotten up, elegantly illustrated, and is in itself a work of art. Price \$3. Supplied by Benerman & Wilson, Philadelphia.

We hope our landscape workers will bear in mind the offer we made on our first page last month of a Gold Medal for the best three landscape negatives sent us by the 15th of August. The season is now upon us when it will be a pleasure to get out and make choice of Nature's beautiful compositions. When a good thing is found, study it well, visit it at different hours of the day, if possible, and choose the light that will produce the best effect. We want something in landscape photography that will be of the same high order as the beautiful medal pictures we have in portraiture.

ALL ABOUT CHICAGO.

PAPERS TO BE READ AT THE CONVENTION

Are invited, and it is especially requested that they be short and practical. The time of the Convention is precious, and the expense of printing is more than the Association can at present afford. The Permanent Secretary will feel obliged if parties intending to read papers will announce their subjects to him by the 15th inst., in order that the programme may be made up in time for the usual circular.

THE SCOVILL AND HOLMES MEDALS

Are offered this year, as usual, "for the first and second greatest improvements made in photography during the last association year." Inventors, experimentalists, and others, will please send their models, manuscripts, &c., to the Permanent Secretary by June 25th, at latest. An earlier time will better suit the committee in charge, in order that they may have all the time possible to make their examinations.

AN EXCURSION PULLMAN PALACE SLEEPING CAR

Or two will leave Philadelphia for Chicago on the Thursday or Friday previous to the Convention, chartered for the trip. Those who can make it convenient to start from that point are requested to inform the Permanent Secretary at least one week ahead, and accommodations will be provided for them, male or female. All will be welcome.

EDWARD L. WILSON, Per. Sec'y, Seventh and Cherry Sts., Phila.

THE EXHIBITION.

REGULATIONS AND ARRANGEMENTS.

THE Sixth Annual Exhibition of the National Photographic Association of the United States will be held in the Inter-State Exposition building in Chicago, Ill., beginning Monday, July 13th, 1874.

The meetings of the Association will be held in the same building, free to members, whose dues are paid. Badges will be supplied at the entrance.

Regulations for those not members will be supplied hereafter.

A cordial invitation is given to all photographers abroad and at home, whether members of the Association or not, to exhibit of their work, and space will be provided free of charge.

The Committee of Arrangements will reject any articles that are deemed improper for exhibition.

No articles will be permitted to be withdrawn until the close of the Exhibition, without a permit from the committee in charge.

DIRECTIONS TO EXHIBITORS

- At the next Annual Convention of the National Photographic Association, to be held in Chicago, opening July 13th, 1874.
- 1. Estimate about the wall-space required for your work, and send, early, the computation thereof to A. Hesler, Local Secretary N. P. A, Evanston, Ill.
- 2. Inquire of your express agent the time required to forward a box from your place to Chicago, Ill., and send so that it will arrive

here not before the 7th of July next, nor after the 14th.

- 3. At the time of dispatching your box, mail a descriptive invoice of the same to A. Hesler, Local Secretary N. P. A., Chicago, Ill., and place a duplicate of the invoice in the box itself.
 - 4. PREPAY ALL CHARGES.
- 5. Screw each frame on to cleats, and screw them to the sides of the box.
- 6. Fasten the lid with screws; use no nails for this purpose
- 7. Put your name on the back of each frame, or your card under the glass in front.
- 8. Put your name on the bottom of the box inside.
- 9. Direct the box to A. Hesler, Local Secretary N. P. A., Inter-State Exposition Building, Chicago, Ill., and on the inside of the lid put your own name and address.
- 10. You can easily see how mistakes and much confusion will be avoided by strict adherence to these instructions.

Articles for exhibition will be received at the Hall from July 7th; not earlier.

Arrangements with express and railway companies are being made for a commutation of fares and freights, and the result will be announced in a circular, to be issued about June 20th.

A copy will be sent to all photographers who can be reached. Those who do not get it, may have copies by applying to either the Permanent or Local Secretary.

The list of hotels and their rates will also be given in the circular.

Photographers intending to be present will please notify Mr. E. L. Brand, of the Committee on Hotels, No. 596 Wabash Avenue, as to the number of rooms and price they desire, and quarters will be engaged for them.

A. HESLER,

Local Secretary, Evanston, Ill.

EDWARD L. WILSON,
Permanent Secretary, Philada.

PHOTOGRAPHERS, ATTENTION!

EVANSTON, ILL., May 21, 1874.

MR. E. L. WILSON,

Permanent Secretary.

DEAR SIR: The hotels have responded liberally, and reduced their rates fifty cents to one dollar per day.

Below I give you the names of such as have reduced their rates, viz.:

		Per day.
Palmer, from	\$3.50-\$5.00 to	\$3.00-\$4 00
Grand Pacific,"	5 00 4	4.00
Sherman, "	5.00 4	4 00
Tremont, "	5.00 '	4 00
Clifton House,"	4.00 4	3.50
Matteson,		3 00
New Briggs Ho	use,	3.00
Commercial,		2.50
St. James,		2.50
Metropolitan,		2.50

Kuhn's European Rooms \$1 to \$2 per day, according to room. Dining rooms attached.

Brevoort House, on the European plan, rooms \$1 to \$3 per day. Dining rooms attached.

It is the wish of the Reception Committee to be notified by every one coming to the Convention, by postal card, the name of the hotel they wish to go to, and rooms will be secured for them and a committee appointed to escort them to their hotels. Address E. L. Brand, 596 Wabash Avenue. By attending to this it will save each one a great deal of trouble and make it pleasant for all parties. The above-named hotels are all new, and for elegance and comfort the four first named are not surpassed, if at all equalled, in the world. The rest are just as good for comfort and table, but not quite so expensive. There are a large number of lower-priced hotels, but we cannot youch for the elegance of accommoda-The above-named we can vouch tions. for. In your postal card to Mr. Brand state also the time of arrival of your train, and by what route you come. If desirable, we can place parties from any given point together, so as to make it pleasanter for them. A. HESLER,

Local Secretary N. P. A.

WHAT THE PROSPECTS ARE.

Mr. C. D. Mosher, one of the hardest workers in the matter, says: "We are going to have a rouser in July. All the West is ablaze, and I do certainly think we shall have the largest body of photographers there we ever had together."

Messrs. Rice & Thompson say: "We think we shall have the best and largest

Convention ever held."

Messrs J. P. Beard & Co. say: "We shall do all in our feeble power to keep the N. P. A."

Several of the Chicago papers say:

"The object of these conventions is two-fold: First, to educate photographers, and improve their art; to interchange ideas, practical experiences and discoveries during the past year, and to examine and compare each others pictures. Second, to educate the public in what photography is doing, and show them what good photographs are, and what photography can do when combined with art, and manipulated by men of science and art-culture. For this purpose are displayed, not only photographs in all their varied branches, but all kinds of materials used in the art.

"Persons who have not had practical experience can have no idea of the amount of capital and varied industries employed in the produc-

tion of a photograph.

"This exhibition will give our citizens an opportunity to see what they are all interested in—the workings of this most wonderful and be utiful of all arts and sciences combined."

Messrs. RICE & THOMPSON,

No. 259 Wabash Av.,

CHICAGO,

Desire to say to photographers that they will find it to their advantage to visit their new and beautiful store, and examine their stock of low priced goods.

They offer particular advantages to photographers, as will be seen by reference to their advertisement further on.

Visiting photographers will be welcomed, and every convenience provided to make their stay comfortable and pleasant.

REMEMBER

259. 259. 259.

A CRAND LEVEE

WILL BE HELD AT THE



"Grand Central" Photographic Warehouse

CHAS. W. STEVENS,

158 STATE ST., CHICAGO, ILL., FROM JULY 13th to 18th, 1874.

CONVENTION OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES, AT THE INTER-STATE EXPOSITION BUILDING.

YOU ARE CORDIALLY INVITED TO BE PRESENT.

THE HOUSE OF J. P. BEARD & CO.

The hundreds of photographers who visit Chicago during the coming National Photographic Association Convention and Exhibition, in July next, will, if they act wisely, not only see and hear everything there, and learn all they can, but they will also look about the great Western Headquarters in order to find the most advantageous place to buy a stock of goods, and to deal in the future.

To those who propose to make such an examination, we would suggest to them the propriety of examining the carefully selected and new stock of Photographic Necessities on exhibition and for sale by Messrs. J. P. BEARD & Co., at No. 48 MADISON STREET, CHICAGO. Although this house is not so well known in the West as others are, for the simple reason that it is a new one, yet be assured it is as amply prepared as any other to supply the wants of the photographer in every respect. The conductors began business with the following purposes in view. 1. To keep a splendid stock of goods constantly on hand, so that, 2. All orders may be expected to be filled promptly, usually the day they are received, and all the goods ordered to be sent exactly as ordered, without substituting other goods for them. 3. So to take advantage of every opportunity to purchase goods at the best figures as to enable them, not only to defy competition in prices and in quality, but as a usual thing to undersell. 4. Good goods will always be given the preference, although ample preparation is made to supply anything the purchaser may require. No doubt photographers will appreciate these advantages, as they always do. No pains whatever will be spared to not only obtain their confidence, but to retain it, so that whether near or far, you may send your orders to them, large or small, feeling sure that they will have the best personal attention.

Messrs. J. P. Beard & Co. beg to announce that they have added to their new establishment a cosy private office, to which photographers visiting the Convention are specially invited, and where they will find all the conveniences for letterwriting, mailing newspapers, and for chatting together, and for resting themselves between the sessions-in fact where visitors can make themselves perfectly at home. Meanwhile, or after the Convention, whenever you come to Chicago, before you buy your goods, be sure to visit our new and beautiful rooms. And if you are so unfortunate as to be unable to come and see us, intrust us with your orders, and we guarantee satisfaction, both in goods and prices, Our stock is all new, and fresh, and good. Please read our other advertisements, and send to us for circulars.

Very Respectfully,

J. P. BEARD & CO.,

No. 48 Madison Street, Chicago.

J.P.BEARD & Co.

WE MANUFACTURE

New PEERLESS COLLODION

FOR FERROTYPES,

PEERLESS COLLODION

FOR NEGATIVES.

EUREKA VARNISH

FOR NEGATIVES.

EUREKA VARNISH

FOR FERROTYPES,

AND

J. P. B. CHLORIDE of GOLD

WE HAVE THE HICHEST

TESTIMONIALS

FOR THE ABOVE.

TRY THEM

AND EVERYTHING PERTAINING to the ART OF PHOTOGRAPHY. REMEMBER

WE POSITIVELY WILL NOT BE UNDERSOLD BY ANY HOUSE IN THE NORTHWEST.

FOR

ARE

AGENTS

FOR THE

NORTHWEST

PATENT

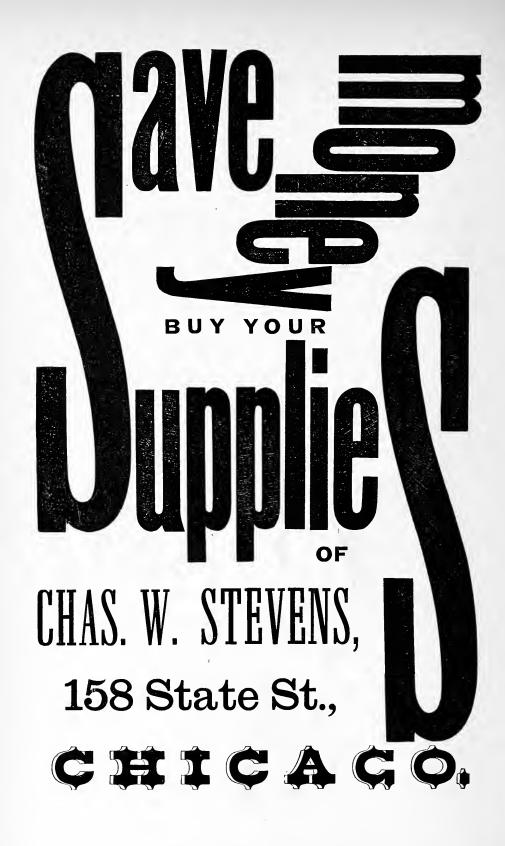
OSCILLATING

WE ARE HEADQUARTERS FOR THE

OPT. CO.'S

HERE ARE NONE

ICAGO, ILLS.



IMPORTANT TO PHOTOGRAPHERS.

WHAT PARTIES SAY, WHO ARE USING

J. A. ANDERSON'S CAMERA BOXES.

OFFICE OF CHICAGO PHOTOGRAPHIC AND COPYING COMPANY,

320, 322, 324, & 326 State Street.

J. A. Anderson,—Dear Sir:—The 10 x 12 Conical Bellows Camera you made us gives entire satisfaction. A. Anderson.—Dear Sir:—He love Content belows camera you make us give entire satisfaction. It is finely finished, and the working parts are all complete in their action. We now have seven of your boxes in our operating department and shall diseard all others (the so-called "Success") for your make, as we will save the price in repairs. They are all in constant use every day, and stand the test better than any other make we have used. For durability, accuracy, and cheapness, they certainly have no rivals; they compare favorably with the A.O. Co.'s boxes, and are far superior to anything else in the market.

[Signed] LAS S NASON (Signed),

J. A. ANDERSON'S

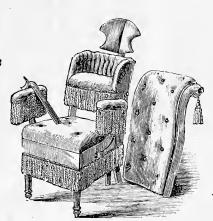
NEW POSITION AND BABY CHAIR, COMBINED.



THE HANDSOMEST.

MOST COMPLETE,

AND CHEAPEST



PIECE OF APPARATUS EVER OFFERED TO THE PHOTOGRAPHER.

BUY NO IMITATION.

SEND FOR PRICE LIST.

Photographers can save from 10 to 20 per cent. by sending direct to the manufactory for Apparatus.

TESTIMONIAL.

Elgin, April 5th, 1874.

Mr. J. A. Anderson.—Sir:—The Camera Boxes prove to be all that I expected. The 11 x 14 is superior to any that I ever used; it is a beauty, and I am proud of it. The cheapness, too, is an item especially with me at this time, having lost all the contents of my gallery by fire. I am obliged to you for your favor. G. H. SHERMAN.

(See other testimonials in special advertisements).

J. A. ANDERSON, (Late Anderson & Bixby), 65 East Indiana Street, Chicago.

We are informed that some of our competitors are advancing the prices of



And we have been requested to do the same, but have declined to enter into any combination whatever. Photographers can rest assured that we shall adhere strictly to our LOW PRICES, as published in our Catalogue of August, 1873, until further notice. The prices therein quoted are the lowest yet made, and all who have not received that list will please send us their address, when it will be promptly Note our very low prices on forwarded.

FERROTYPE PLATES, CAMERA BOXES, &c.

Everything sold at bottom figures, and all orders executed to the letter, and with the greatest of promptness. Agents for the Northwest for

WESTON'S ROTARY BURNISHERS, WOODWARD'S SOLAR CAMERAS, And SCOTCH ALBUMEN PAPER.

We hope all those who have not tried the Scotch Albumen Paper, will give it a trial, as it is giving

universal satisfaction, and is having an immense sale. We have it in White and Pink.

Prices furnished on application for Woodward's Solar Cameras, either the Reflectors or Direct Printers, with license attached. Any one desiring a license for the use of Solar Cameras, can get the same of us at the price charged by Mr. Woodward, \$40.00.

Don't forget to order a Weston Burnisher; we are selling large numbers of them, and the fine effect Remember, we carry the LARGEST STOCK IN THE WEST, and owning the land and the building

we occupy, we are fully prepared to give you rock hottom prices on everything.

RICE & THOMPSON'S MAMMOTH STOCKHOUSE, 259 Wabash Ave., CHICAGO.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stockdealers will find this a beneficial mode of advertising, and sire to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23rd to secure insertion. Advertisers will please not ask us for recommendations. **E** We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

What?—Yes, it is a fact, the Convention will be held in Chicago in July, and everybody is going. Charles W. Stevens' "Great Contral" will be the headquarters, and the largest stock of photographic materials ever displayed will be seen at 158 State Street. Come and see.

Baltimore

Baltimore

Baltimore

Stockhouse, Stockhouse, Stockhouse,

Chas. A. Wilson,
Chas. A. Wilson,
Chas. A. Wilson,
No. 7 North Charles St.
No. 7 North Charles St.
No. 7 North Charles St.

Wanted.—A photographer thoroughly acquainted with the work of the dark-room, who can pose and compose with skill and taste in the light, and understands retouching negatives.

None need apply who do not come up to the above requirements.

D. H. Anderson,

1311 Main St., Richmond, Va.

For Sale.—The largest and best arranged photograph rooms, in a manufacturing city of 37,000 inhabitants. Good entrance. Good reputation. Rooms doing at present \$100 per week. Rent low. Reason for selling: changing business. Will be sold cheap, and on reasonable terms. Inquire of Mr. Codman,

At G. S. Bryant & Co's, Boston, Mass.

ATTENTION is called to J. A. Anderson's Camera Boxes and testimonials in our advertisements. These boxes are fast taking rank among the leading boxes in the country, and photographers will find it to their advantage to post themselves in regard to prices, &c.

For Sale.—In Indianapolis, Ind., a first-class photograph gatlery; two large skylights, good instruments, water supplied by the city water works, and all conveniences for doing large, first-class work. Located on the principal business street, and now doing a good business.

Address Proto.,

Care of L. S. White, Indianapolis, Ind.

OUR LATEST ILLUSTRATED PRICE LIST has been published. Central manufacture for photography.

T. F. SCHIPPANG & Co.,

Berlin, S. W. Neuenburger St., 25.

For Sale.—A solar camera that prints 25 x 30, nearly new, and cost \$250, for sale for \$150. Cash only. License included. Apply to

S. A. THOMAS, 717 6th Avenue, N. Y.

FOR SALE OR TO LET.—A splendid Broadway gallery, furnished complete with everything required to work; or would rent rooms and sell fixtures only. Rent very low, and will be sold at a bargain. I have other business that requires all my attention. Address

C. K. Bill, Solar Printer, 758 Broadway, N. Y.

A FACT.—You can safely rely on it. The biggest and most successful show ever made by the N. P. A. will be the Chicago Convention, in July, and the most popular place in Chicago during the Convention will be the "Great Central" Photogrophic Warehouse of Charles W. Stevens, 158 State Street. Come and see.

Wanted.—A lady to retouch negatives and finish photographs in India ink and water colors.

Address C. J. Warner, Rome, Ga.

\$250-\$500 Cash, which is half price, will buy a fine portable gallery, with or without outfit, and is doing a good paying business. Has splendid light, is quick and easy moved, strong, etc. Size, 12 x 24. Proprietor compelled to return to Europe this summer; otherwise would not sell at all. For particulars, address

F. DAEL, P. O. Box 141, Versailles, Ky.

Criswold's Stereoscopic Compositions. Read advt.

PHOTOGRAPHIC GALLERY FOR SALE.—This gallery is located on Pennsylvania Avenue, be9th and 10th Streets, west, Washington, D. C.;
the best business part of the city. Has superior light, and first-class instruments and fixtures.
Terms moderate. Address

MRS. W. OGILVIE,

905 Pennsylvania Avenue, Washington, D. C.

USE WAYMOUTH'S VIGNETTE PAPERS.

For Sale.—Photograph rooms in new brick building, 24 by 80 feet. Established ten years. Over 7000 negatives. In the rapidly growing village of Waverly, junction of four railroads. North light. Everything complete for portrait and viewing. Sickness the cause for selling.

Address MEAD & BEARD,

Waverly, Tioga Co., N. Y.

Photographers in the South and Southwest who would buy goods to their best advantage would do well to patronize the Stockhouse of Chas. A. Wilson, No. 7 North Charles St., Baltimore, Md. Send a trial order.

DANVILLE, IOWA, March 11, 1874.

MR. J. A. ANDERSON.

DEAR SIR: After a month's trial of the box bought of you, I am willing to add my testimony as to the superiority of your camera boxes. It works like a charm and is satisfactory in every respect.

Yours truly,

HUBERD WILLIAMS.

FOR SALE, CHEAP.—A Shive's direct solar camera, 12 inch condensing lens, all complete; or would exchange for a mammoth tube and box. Would sell my rooms very reasonable. Splendid new rooms, just fitted up. Correspondence solicited. Population 15,000. Address

J. S. Young, Box 96, Steubenville, Ohio.

For Sale.—Photograph gallery in Toledo, Ohio, doing a good business. Good light and apparatus. Up one flight of stairs. Water works and gas. Three years' lease. To a cash customer this is a good chance. Address

G. H. CHESEBRO, 207 Summit St., Toledo, Ohio.

A GOOD RESOLUTION.—That you will attend the Convention of the N. P. A., in Chicago, in July next, and not fail to see Charles W. Stevens, at the "Great Central," 158 State Street. More goods there than can be found in any other house in the trade. Prices, of course, always the lowest.

I most cheerfully recommend Mr. J. A. Anderson's Camera Boxes, for beauty, durability, and cheapness. I have two in my establishment since my opening here, and find them fully up to the claims of a first-class instrument.

W. A. Armstrong, State and Quincy Streets, Chicago.

Mr. Armstrong has for a number of years past been engaged in business in Saginaw. Mich., and is a photographer well known to the fraternity. FOR SALE.—My newly-fitted rooms in Spring-field, Southwest Missouri. Population over 7000. The central trading point for all the surrounding country. Situated on the line of the Atlantic and Pacific Railroad. Rapidly building up with all kinds of factories. Climate most delightful. Only first-class rooms in the southwest part of the State. Well furnished with latest improvements. North light top and side. Plenty to do, and good prices for doing it. \$800 cash will purchase. Address . W. S. Johnson,

Springfield, Mo.

Prove IT.—Come and investigate. You can see the greatest display of pictures, hear some of the best teachers in our art at the N. P. A. Convention, and visit that noted place, the "Great Central" Photographic Warehouse, 158 State Street, where Charles W. Stevens will be on hand to welcome all comers.

J. A. Anderson, Manufacturer of Photographic Apparatus, 65 East Indiana St., Chicago. Send for price list.

\$500 will buy a gallery that has been in successful operation for over twelve years. Good north and side light, well furnished and pleasantly situated; but one competing gallery in a scope of 20 to 30 miles. Good business and good prices. Cards, \$3; 4-4, \$8 per dozen. Address

JAMES MCADAM, Wenona, Ill.

Please read the two-page advertisements of Charles A. Wilson, Baltimore Stockhouse, No. 7 North Charles Street. Please remember the number, 7 North Charles St., Baltimore, Md.

PUSH, pluck, perseverance, patience, promptness, prove prime partners, photographically pondered. Purchasers, put Charles W. Stevens, 158 State Street, Chicago, on all your orders.

The Rapid Photo-Washer will wash your prints in ten minutes.

Any person having any claim against J. H. Dampf, please present them for adjustment to J. H. Dampf, Corning, N. Y.

Wanted—An energetic partner with \$2500 cash, or more, in a good flourishing gallery in one of the handsomest cities of the Union. Would sell out entire, but prefer a partner. Address

"32," care Benerman & Wilson, Philada.

USE WAYMOUTH'S VIGNETTE PAPERS.

NOTICE TO PHOTOGRAPHERS.

DAVID A. WOODWARD v. FRANCIS L. MITCHELL. In the Circuit Court of the United States for the Western District of Missouri. April Term, 1874. In Equity.

This cause being submitted for final decree, this 22d day of April, A. D. 1874, it is ordered, adjudged, and decreed, that the injunction heretofore granted in this cause be and the same is bereby made permanent, and that the defendant above named, his servants, agents, operators, and workmen, and each and every of them, be and they are hereby perpetually enjoined and restrained from, either directly or indirectly, making, constructing, using, or vending to others to be used, or in anywise counterfeiting or imitating the solar camera, or any instrument for photographic purposes made in accordance herewith, whether known by that or any other name, constructed and operating in the manner and upon the principles described in certain letters patent of the United States, dated on the 10th day of July, 1866, being the reissue of certain other letters patent granted to the said David A. Woodward, for a new and useful improvement in instruments used for photographic purposes, and called the "solar camera," bearing date the 24th day of February, A. D. 1857.

And it is further adjudged, ordered, and decreed that the defendant pay the costs of the proceedings in this cause.

United States of America, Western District of Missouri, ss. I, M. M. Price, Clerk of the Circuit Court of the United States, in and for the Western District of Missouri, and Eighth Circuit, do hereby certify that the foregoing is truly taken and made from the original now of record in the said Circuit Court.

In testimony whereof, I have hereunto subscribed my name, and affixed the seal of the said Circuit Court, this 8th day of May, A. D. 1874. [SEAL] M. M. PRICE, Clerk.

Newell's Baths and Dishes having been indorsed by the trade, have been placed in the hands of all stockdealers for sale. Please inquire for them.

WANTED .- Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

If you want to improve your work and save time get the Rapid Photo-Washer.

LIDES FOR THE MAGIC LANTERN & STEREU OVELTIES A SPECIALT ENCLOSE STAMP FOR CATALOGUE 5 809 FILBERT ST. PHILA.PA

MAGIC LANTERNS AND SLIDES WANTED.

THE subscriber will dispose of the following articles, for want of use. One 4-4 Usener lens, selected by myself, warranted fine; one 1-2 size French lens made by Gasc & Charconnet, fine; one 4-4 mahogany view and portrait box, double swing-back, fine and in good condition; one 2 tube box, swing-back, for plates 44 x 64, 2 holders, good; one sliding card box, Peace's make, 4 card and 1 holders; two 4-4 plain boxes, with holders considerably worn; one large camera stand, Peace's make; two backgrounds on frames 8 x S, heavy castors; one circular platform, on castors 41 feet in diameter, covered with carpet; one Knell's fringed chair; one 8-10 covered rubber field bath; one 4-4 porcelain bath; two pieces canton matting, each 10 x 14 feet, good; one letter copying press, 11 x 17 inches.

WILLIAM H. RHOADS,

1800 Frankford Road, Philada, Pa.

CAUTION .- Photographers will please take notice, that a patent is applied for, for the Ceramic Photographs, or Vitrified Photo. Enamels. Burnt in by fire, by a new, simple and certain process, which secures the most beautiful gradations of tone, depth, and transparency in the shades, and brilliancy in the high lights. Terms for instruction in the method, and requisites for the art, may be had solely of

> THOS. H. RUTTER, Photo. Enameler, Care of Rice & Thompson, 259 Wabash Avenue, Chicago, Ill.

ST. JAMES HOTEL, Grant, Cobb & Hilton, Proprietors, corner of State and Van Buren Sts. (two blocks only from the N. P. A. Exhibition), Chicago. \$2.50 per day to photographers, special.

SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

We cannot have letters directed to our care unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; pay postage. We cann please do not request it.

As a first-class operator. C. E. Webster, Crawfordsville, Ind.

By a young Frenchman, well versed in all the branches of photography and painting, as operator or colorist. Alphonse Locquier, Lake Charles, Calcagsien Parish, La.

As printer and retoucher. Can paint portraits in oil colors. J. F. Gard, Logansport, Ind.

USE WAYMOUTH'S VIGNETTE PAPERS.

With a traveling ferrotyper, to run a gallery on a new plan. George Brown, Scenic Artist, Mount Morris, N. Y.

By a lady, to finish photographs in colors and ink. References given and required. Address, stating terms, M. B. Atkinson, 215 Spruce St., Philadelphia.

As operator. Can make clean, nice, artistic negatives every day in the week. Has run one of the leading galleries of the Northwest for three years. Can furnish the best of reference. P. O. Box 1306, Joliet, Ill.

By a first-class German operator, four years in this country. Good references will be given. Address Fred. Geuckotard. care of Mrs. Gebhardt, 74 Avenue A, New York.

By a young man who has some knowledge of the business in all its branches, as general assistant. Good references given. C. C., Lock Box 19, Shelbyville, Tenn.

In a first-class gallery, to finish photos in crayon, colors, or ink, or to retouch negatives. Salary \$15 to \$20 per week. F. D. L., J. Loffler, Photographer, Tompkinsville, Richmond County, N. Y.

By a young man of steady habits, to learn water coloring under good instructor. Would make himself generally nseful about a photograph gallery. Western States preferred. A. W. Zumbro, Macomb, Ill.

By a first-class man of twelve years' experience, as operator in a leading gallery, or partnership interest in lieu of services. Address Positionist and Operator, care L. Dubernet, 15 Amity Street, New York City.

By a lady, as retoucher of negatives. Can give good recommendation. Maud Mey, P. O. Box 161, Athens, New York.

As printer. Seven years' experience. Good reference, &c. H. M. J., Box 1038, Springfield, Mass.

By a lady of eight years' experience. Feels capable of filling any place in a gallery. Address Artist, 1001 Green Street, Philadelphia.

As an assistant operator and general assistant. Can print well and can make good ferrotypes. Only needs practice, and will work cheap. Address Will R. Carlton, Keensburgh, Wabash County, Ill.

By a strictly first-class operator, posted in all the latest improvements, Address G. W. Belcour, care of Scovill Manufacturing Co., 419 & 421 Broome Street, New York.

By a first class operator and retoucher. Is now in a first-class gallery, but desires to change locality. Good references. Address Operator, care of J. Q. A. Tresize, Springfield, Ill.

As negative retoucher, by a competent man. For specimen of work, I would refer you to the pictorial page of the April number of this magazine. John H. King, corner of Huntington and Cooper Streets, Utica, N. Y.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary, 27 Central Square, Cambridgeport.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N. Y.—Fourth Tuesday in each month, at 179 Montague Street. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary.

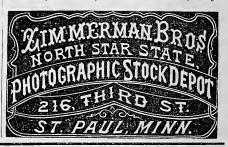
Photographic Society of Philadelphia.—At No. 520 Walnut Street, third floor, first Wednesday of each month. J. C. Browne, President; E. Wallace, Jr., Secretary, 1130 Spruce Street.

Pennsylvania Photographic Association, Philadelphia.—At the galleries of the members. H-C. Phillips, President; R. J. Chute, Secretary, Office Philadelphia Photographer. Third Friday.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State Street.

Chicago Photographic Institute, Chicago.— 1st Monday, monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, Sec'y.



AUG. SCHWARZE.

SCHWARZE & VALK,

WILLIAM VALK.

NO. 614 ARCH STREET, PHILADELPHIA.

most celebrated grands of German Albumen Paper, and Arrowroot Plain Salted Paper.

DEALERS IN PHOTOGRAPHIC MATERIALS OF EVERY DESCRIPTION.

Will mail to any address in the country, post-paid, on receipt of \$1, one dozen sheets of Assorted Photographic Paper, each sheet being numbered for distinction.

ARTIONS!

In order to meet the thirst now happily growing so rapidly among photographers, for knowledge bearing upon

ART PRINCIPLES APPLICABLE TO PHOTOGRAPHY,

We have arranged with the various publishers of art works for the sale of such as we think will be useful to photographers, and will be glad to mail copies of them on receipt of price, as follows:

ART CULTURE.	
A Hand-book of Art Technicalities and Criticism. By John Ruskin, \$3 0	0
STUDY OF ART. By M. A. Dwight,	0
THE OLD MASTERS AND THEIR PICTURES.	
By S. Tyler,	0
MODERN PAINTERS AND THEIR PAINTINGS. By S. Tyler,	0
MANUAL OF FREE-HAND DRAWING AND DESIGNATING, AND GUIDE TO SELF INSTRUCTION. By WALTER SMITH,	_
MANUAL OF FREE-HAND DRAWING AND DESIGNATING, AND GUIDE TO SELF INSTRUCTION. (Primary Edition.) By WALTER SMITH,	_
All orders filled promptly.	

BENERMAN & WILSON, Photo. Publishers, Philadelphia.

MARCY'S SCIOPTICONS, MCALLISTER'S MAGIC LANTERNS

IN CREAT VARIETY.

LANTERN SLIDES, OF THE WORLD.

LARGE STOCK JUST RECEIVED BY

BENERMAN & WILSON, Importers, Seventh and Cherry Sts., Philada.

DAMAGED LANTERN SLIDES

The recent fire in our establishment caused a part of our large stock of Lanteru Slides to be damaged by water. For all practical uses they are not damaged at all. Any photographer, by repairing the sticking paper around them, may make them as good as new. We cannot repair them to look like fresh stock, so we offer them at the following reduced rates:

Levy's Foreign Views (Holy Land, Paris, and Europe), 50 cts.

Retailed at \$1.25.

Colored Scripture and Comic Slides,. 60 and 75 'Retailed at \$1.25 and \$2.00.

Care given to selecting for parties who cannot be present to select for themselves.

BENERMAN & WILSON.

Seventh and Cherry Streets, Philadelphia.

SOMETHING NEW.
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SOMETHING NEW WILL BE HANDED TO ALL THE PHOTOGRAPHERS WHO

Visit the Chicago Convention!

THOSE WHO CANNOT ATTEND WILL BE SENT A COPY ON APPLICATION TO THE PUBLISHERS.

IT INTERESTS ALL,

WILL MAKE BUSINESS,

WILL SAVE TIME,

HELP RAISE PRICES.

See Future Advertisements.

BENERMAN & WILSON, Photo. Publishers, **Philadelphia**, **Pa**.

THE

DRAGIIGAL PRIMITER.

In press and will be ready in June, a new photographic work entitled

THE PRACTICAL PRINTER,

By CHAS. W. HEARN,

A gentleman who has devoted several years to photographic printing especially, and who is now engaged at it as his constant occupation.

The work gives all the instructions that a beginner could possibly want in detail, and is what the title indicates—practical.

It will also be found of invaluable service to any photographic printer, be he ever so skilled.

Too little attention has heretofore been given to photographic printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create

REFORM

in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

Contents next month.

A fine example of photographic printing, by the author, will accompany the work, from negatives by F. Gutekuust, Philadelphia.

PRICE, \$2.50.

BENERMAN & WILSON, Photographic Publishers,
SEVENTH & CHERRY STS., PHILADELPHIA.



Special Premium of Six Handsome German Cabinet Pictures of Ladies!

BY FRITZ LUCKHARDT, VIENNA, AUSTRIA.

These pictures are alone worth \$3 for the set, and more is asked for such by dealers.

Given to any one who will send us a NEW Subscriber for the year 1874.

What Others Think of the Prizes:

"These studies were greatly admired by the members present, and all were convinced that they were worthy of most careful study."—Minutes of the Chicago Photo. Association.

"These pictures were examined and much admired by all present."—Indiana Photo. Ass'n.

"The pictures elicited general praise; the draperies especially were very favorably commented upon."—German Photographers' Society, New York.

"The prints were thought to be worth more than the price which was charged for the journal, i.e., \$5; and the President, Mr. Black, stated that every operator should have a set, for he considered them to be most admirable studies, and superior to anything which he had seen heretofore."—Boston Photographic Society.

"They were accepted as being of a very high standard."—Brooklyn Photo. Art Association.

"The high artistic merits of the pictures, and their great value as studies for the progressive photographer, were conceded by all. The general harmony in the details of each print, the management of light, and beautiful rendering of texture were greatly admired."—Photographic Section of the American Institute, N. Y.

Special votes of thanks were given for them by the Photographic Society of Philadelphia; Photographic Association of West. Illinois; Chicago Photographic Association; Indiana, District of Columbia, and Maryland Photographic Associations; Photographic Section of the American Institute; German Photographers' Society, New York; Boston and Brooklyn Photographic Art Associations, whereat they attracted great attention and admiration.

A Few Words from those who have received them as Premiums for New Subscribers:

"I think when we say they are splendid it is only a mild expression of what they will bear."

—E. F. EVERETT.

"They are well worth striving for, and the photographers who allow this set to remain out-

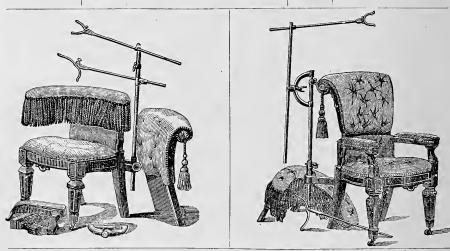
side their collection don't deserve them.''—J. PITCHER SPOONER.

"They are by far the best specimens of photographs of white drapery that I ever saw, and the artistic part leaves nothing to wish for."—
JAMES PARIS.

We make this offer as A MATTER OF BUSINESS, and not as a favor to any one on either side. It will pay to GIVE A YEAR'S SUBSCRIPTION TO YOUR OPERATOR or to your friend or customer, in order to SECURE THESE PICTURES.

BENERMAN & WILSON, Photo. Publishers, Philada.

THE Complete, BOWDISH And Perfect Posing Apparatus. CHAIR.



Enabling the photographer to successfully secure every variety of pose with facility and reliability. It is admirably adapted to the varying necessities of female portraiture, and is equally suited for children, for vignettes, or for full lengths. The BOWDISH CHAIR is substantial in construction, elegant in design, and rich in upholstery and finish. Those who have purchased them, speak in the highest terms, as will be seen by the following



"About ten days ago I received the new chair you promised to send me when I saw you last, and would have written and acknowledged your kind favor long ago if I had correctly known your address. Accept my best thanks for this really beautiful chair, which now, after ten days' trial, has proved to be a decided success in every way. It has become the real favorite for posing in my studio. Besides this, in external appearance the new chair appears so much superior in finish, and is at the same time highly ornamental, and the head rest is so much easier handled than with any chair I have ever seen before. In short, it gives the sitter the greatest possible comfort and steadiness. I think the chair I have justly deserves the name of 'Perfect Posing Chair.'"—H. ROCHER, Chicago, Ill., January 10, 1873.

"Since receiving your posing chair, nearly a year since, I have had it in constant use, and am satisfied that it is the best posing chair in the market. It is easily worked, and is so well made that one will last a life time, and then be a valuable heirloom."—L. G. BIGELOW.

"The Bowdish Chair came in good order and gives the best of satisfaction. Should you wish a recommendation for it, say what you please and we will endorse it. You cannot praise it too highly."—SLEE BROS., Poughkeepsie, N. Y., Sept. 10, 1872.

"Your chair has arrived at last. I am much pleased with it. I don't think my gallery can be complete without one of them. Wishing you the success your invention merits, I am, truly yours, A. HESLER."

Prints will be sent, if desired, before purchasing. There are three styles kept in stock, viz:

No. 2.	With	nickel-plated	rods a	nd rest,	in velveteen	en or reps\$60	00
		4 ("		" square carved legs, 70	00
No. 6.	"			"	in best plush	sh, paneled 80	00
Speci	al cha	irs to order			•		

E. & H. T. ANTHONY & CO., Sole Agents,

591 Broadway, New York.

GIHON'S CUT-OUTS

Are the very best that are made, and are now without a rival in the market. They are clean cut, most desirable shapes and sizes, and made of non-actinic paper, manufactured specially for the purpose. Each package contains 30 Cut-Outs, or Masks, with corresponding Insides, assorted for five differently sized ovals and one arch-top.

PRICE, \$1.00 PER PACKAGE. Sent by mail on receipt of price.

Parties wishing special sizes, or large lots of a few sizes, may have them cut to order promptly, by addressing the manufacturer. No lot costing less than \$1.00 made at a time.

No printer should attempt to make medallion pictures without them.

THEY HAVE NO EQUAL FOR QUALITY.

Beware of spurious imitations made of common paper, full of holes, badly cut, and odd shapes and sizes. Ask your stockdealer for GIHON'S CUT-OUTS, and see that they are in his envelopes with instruction circular included.

and the service of th

GIHON'S OPAQUE

IS DESIGNED FOR

COMPLETELY OBSCURING THE IMPERFECT BACKGROUNDS OF COPIES, RETOUCHING NEGATIVES,

FAULTY SKIES IN LANDSCAPES,

COATING THE INSIDE OF LENSES OR CAMERA BOXES,
BACKING SOLAR NEGATIVES,

COVERING VIGNETTING BOARDS,

AND FOR ANSWERING

ALL THE REQUIREMENTS OF THE INTELLIGENT PHOTOGRAPHER IN THE PRODUCTION OF ARTISTIC RESULTS IN PRINTING.

WHEREVER YOU WANT TO KEEP OUT LIGHT, USE OPAQUE.

It is applied with a brush, dries quickly and sticks.

CUT-OUTS (thirty), \$1.00.

OPAQUE, 50 CENTS.

FOR SALE BY ALL DEALERS.

Address all orders to

JOHN L. CIHON, Inventor,

128 N. Seventh St., Philadelphia, Pa.

ROBINSON'S



FOR USE WITH THE ROBINSON PRINT TRIMMER

Oval, Round, Elliptic and Square, of all sizes; various shapes for Stereoscopic work, Drug Labels, &c., &c. Regular sizes always on hand. Special Sizes made to order. Price for regular photo sizes, 10 cents per inch the longest way of the aperture. Special sizes, 15 cents per inch. FOR SALE BY ALL DEALERS.

BENERMAN & WILSON, Manufacturer's Agents,

IN THE BEST MANNER AND GUARANTEED

HUNDREDS EXPORTED TO ENGLAND AND GERMANY

ROBINSON'S

PHOTOGRAPH TRIMMER

IS A NECESSITY AND CONSIDERED INVALUABLE.

For examples of its work we refer to the recent and present pictures in the Philadelphia Photographer.

IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

The accompanying cut represents the instrument in the act of trimming a photograph. It does not cut, but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once.

Oil the wheel bearings with Sewing Machine Oil.

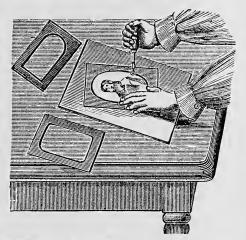
A Trimmer Mailed for \$3.50.

The difficulty of procuring exactly true guides for cutting out prints has induced the inventor to put up machinery for the production of all styles of them, guaranteed mathematically true, and to be known as

ROBINSON'S IMPROVED GUIDES.

See advertisement on opposite page.

A full stock of regular sizes now on hand. A complete, illustrated, catalogue and price-list will be issued soon.



READ THE TESTIMONIALS.

"For cutting ovals I think the Robinson Trimmer is perfect, and if nobody brings them out in England I shall, as I think it a pity such a good thing should not be introduced."—WALTER B. WOODBURY.

"I would rather give fifty dollars than be without one. By its use all annoyance from dull knives tearing the prints is avoided, and it is a pleasure to use it."—E. T. WHITNEY, Norwalk.

"Robinson's Photographic Trimmer is an excellent little instrument. It does the work intended magnificently. It is not only exquisite for trimming photographs, but also for making Cut-Outs and cutting the sensitized paper to any needed size, using for the latter purpose a guide of steel in form of a ruler, thus entirely dispensing with the knife."—Bern'd Kihllentz, Chicago, Ill.

"I like the Trimmer very much. I think it a very useful article. It works well and does all it is recommended to do."—F. G. Weller, Lilleton, N. H.

"The Robinson Trimmers have come to hand, and I like them very much; they are just what I wanted and found it difficult to get."—J. W. Black, Boston.

"I am using the Robinson Trimmer and consider it the best article for trimming photographs I ever saw."—W. H. Rhoas, Philadelphia.

"It does its work magnificently. The only wonder is, that it was not invented years ago. It is indispensable."—Garrett Bros., Philadelphia.

"I think the Robinson Photographic Trimmer is the best thing ever put upon the market for photographic use. It is cheap and does its work perfect. I now make with it all the cut-outs I use, and also cut out all my photographs from eleven by fourteen down to cards. It only cost me four dollars and I would not be without it for the best twenty-five dollar cutting machine I ever saw."—D. Lothrop, Phila.

"The Trimmer comes up to all you claim for it. I would not be without it."—T. Cummings, Lancaster.

"Robinson's Photograph Trimmer is all that it is claimed to he. I have trimmed all my prints with it from the day I received it, in less than half the time taken by a knife. It does its work with mathematical correctness and uniformity. I would not be without it for ten times its cost. It cannot be recommended too highly."—W. H. Cranston, Corry, Pa.

"The Robinson Trimmer has proved to us one of the most usefully instruments that we have in our gallery. In the few months that we have owned it we cut some 10,000 photographs with it, which were cut in one-fourth the time, and cut better than any other instrument could do it."—Schreiber & Sons, Phila.

"It does the work quick, sure, and perfect. We would not be without it. It is simply what it is represented to be."—B. Frank Saylor & Co., Lancaster.

"The Photograph Trimmer is a good and quick working thing. I do not want any thing better and more useful in the gallery for that purpose. I would not be without one."—A. M. Bachman, Allentown, Pa.

"I have used Robinson's Photograph Trimmer some time. A lady was asked how she liked her sewing machine, and in reply said 'Well I could get along without it, but when I do I shall not sew any more. That is me, I can get along without the Trimmer but when I do I shall not trim photographs."—WELL G. Singhen, and in reply said 'Well I rould get along of the kind I have ever used. There is nothing amongst my photographic stock more useful."—M. P. Rice, Washington, D. C.

"The Robinson Trimmer works admirably. Does the work intended with great satisfaction."—A. K. P. Transk, Philadelphia.

BENERMAN & WILSON, Manufacturer's Agents,

FOR SALE BY ALL DEALERS.

PHILADELPHIA, PA

WETPHOTOGRAPHIC BOOKS

FOR SALE AT ALMOST NOTHING.

"A FEW MORE LEFT."

BARGAINS FOR PHOTOGRAPHERS.

The Late Fire

In Sherman's Building having caused a portion of our stock of Books and Magazines to be deluged with water, we offer the following bargains to operators, assistants, employers, &c.:

0.0		D W P C D I	#0	~ A
20	Copies	Dr. Vogel's Reférence-Book,	. \$0	50
20) "	Anderson's Comic All-my-Knack (paper),		20
16	3 "	" (cloth),		30
30) "	How to Sit for your Photograph, ".		20
6	3 "	" " (paper),		10
12	2 "	Carbon Manual (cloth),		50
12	2 "	Photographic Mosaics (cloth),		30
49) "	" (paper),		25
30) "	Linn's Landscape Photography,		25
14	٠٠ ا	Year-Book of Photography,		25
16		Glimpses at Photography,		50
8	3 "	How to Paint Photographs (cloth),		75
600) "	Photographic World (1871 and 1872), .		10
400) "	Philadelphia Photographer (1865 to 1874),		15

The above goods were WET and not burned. They are now dry, and for all practical uses as good as new books, but so stained that we cannot sell them for new, and we offer them for one more month, at the above rates.

LET THE ORDERS COME NOW! One dollar will buy lots of useful reading! A good chance to fill up back volumes of our Magazines.

State your orders explicitly.

BENERMAN & WILSON, Photographic Publishers,
SEVENTH & CHERRY STS., PHILADELPHIA.

WILSON, HOOD & CO.

Take pleasure in calling attention to the following NEW articles, which they now have in stock, and can ship at short notice.

Entrekin's Oscillating Enamelers,

Each Press is supplied with Gas Burner or Alcohol Lamp (as the purchaser prefers), an Oil Stone, for polishing the Burnisher, and one Cake of Soap for making Lubricator.

PRICES AS FOLLOWS:

6 in., \$25; 10 in., \$40; 14 in., \$50; 18 in., \$75. BIRD'S HEAD SCREENS (each), \$10, \$12, and \$15.

WITTE'S EVAPORATING DISHES and WATER BATHS COMBINED.

PRICES AS FOLLOWS:

¹/₂ Gallon, \$3.50; 3 Qts., \$4.50; 1 Gallon, \$5.00; 1 Gallons, \$5.50 LARGER SIZES TO ORDER.

NASON'S BACKGROUND CARRIAGE, \$5.00.

MOULTON'S RAPID PHOTO-WASHER.

Washes with exact uniformity, and gives more brilliant and permanent work; is simple, not liable to get out of order, and will last a life-time.

	Size of	f Cylinder.			Capacity in Cards.	Largest Print.	Price.
Diam.	16 in.	, Length	$14\frac{1}{2}$	in.	84	14×17 in.	\$30 00
		"			144	18 x 22 "	40 00
"	25 "	66	24	66	220	22 x 28 "	50 00

WE ARE ALSO AGENTS FOR

Julius Kruger's Patent Cement Water Colors

FOR COLORING PHOTOGRAPHS ON ALBUMEN OR PLAIN PAPERS.

PRICES:

Box of 6 Cakes, \$2.25.—12 Cakes, \$4.25.—18 Cakes, \$6.50.
WARRANTED VERY FINE.

We have also an extra fine lot of

Parys' Negative Gun Cotton,	Price, per ounce,	\$0.50
Liesgang's Papyroxyline,		1.25
French Aniline Colors,	" per box,	5.00

FULL STOCK OF

MONOGRAM COLLODIONS, VARNISHES and COTTONS, WILSON'S HEAD RESTS, TABLES, CHAIRS, VASES, COLUMNS, AM. OPTICAL CO.'S APPARATUS, KNELL'S, SCOVILL'S, and BOWDISH CHAIRS.

SOLE AGENTS AND MANUFACTURERS OF

Berguer's, and Burgess & Lenzi's Print Cutters, and Chute's Cameo Press.

Price Lists gratis on application.

SALESROOMS, 822 ARCH STREET, PHILADELPHIA, PA.

JOHN DEAN & CO., MANUFACTURERS, Worcester, Mass.,

OFFER AT WHOLESALE, AT LOWEST PRICES, THE



BLACK and Patent CHOCOLATE TINTED, EGG-SHELL and GLOSSY.

The experience and extensive facilities of John Dean & Co. enable them to produce the most desirable Ferrotype Plates in the market.

E. & H. T. ANTHONY & CO.,

TRADE AGENTS.

591 BROADWAY, NEW YORK.

BENJAMIN FRENCH & CO.,

159 Washington St., Boston,

Importers and Sole Agents in the United States for the celebrated

Voigtlander & Son, and Darlot Lenses

For Portraits, Views, and Stereoscopic Work of all sizes. Send for Price List.

TRY OUR NEW STEREOSCOPIC LENSES

IF YOU WANT THE BEST. PRICE, \$22 PER PAIR.

None genuine unless our names are engraved on them.

ALBUMEN PAPERS.

Clemon's,

Dresden S. & M...

Hovey's,

"

Brilliant.

AMERICAN OPTICAL CO.'S CAMERA BOXES

Black Walnut Frames, OVAL and SQUARE, of all sizes and styles, superior finish.

Carved Rustic Frames, Square, Carved Rustic, with leaf on corners. All sizes up to 18x22.

Sherman Card Frames. We have of these three different sizes and styles for the Card, Victoria, and Cabinet Photographs.

White Hollywood Frames. We have these in three different styles of each size for the Card, Victoria, and Cabinet Photographs.

Stereoscopes, Prang's Chromos, Glass Baths, Plain Paper, Porcelain Ware, &c.

And every description of goods used in the business, at wholesale and retail, at the lowest cash prices.

BENJAMIN FRENCH & CO.

* 4

Photographic Card Warehouse.

A. M. COLLINS, SON & CO.,

MANUFACTURERS,

No. 18 South Sixth St. and No. 9 Decatur St.,

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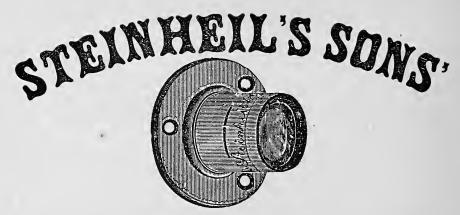
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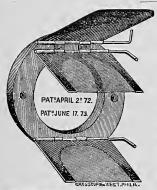
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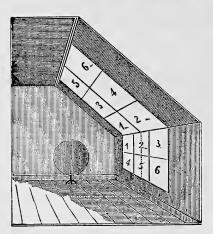
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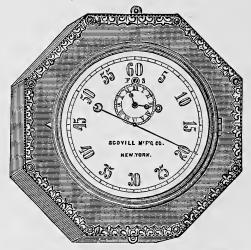
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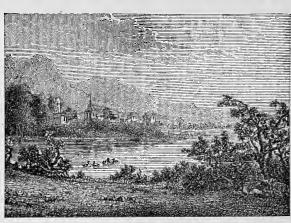
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Permanganate of Potash—Its Use in our Art.
Preparation and Using of Developer.
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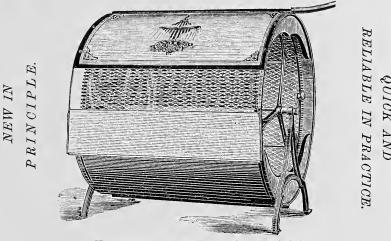
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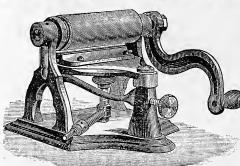
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C. M. PARKS, Solicitor of Patents.

Office of C. M. Parks, Solicitor of Patents, 428 Seventh Street Washington, D. C., January 5th, 1874. WM. G. ENTREKIN. DEAR SIR: Yours is just received. You need not fear any trouble from any parties in regard to other machines; your Burnisher does not infringe with any feature of any other machine in the least particular. You can, therefore, manufacture and sell yours with impunity.

Yours truly, C. M. PARKS

All photographers not to be frightened out of purchasing our superior "Oscillating Enameler for Burnishing Photographs." We simply defy any party or parties to interfere with us in the manufacture or sale of said machine, for which we hold letters patent for seventeen years, in the United States and Territories. We will gnarantee protection to every purchaser. We shall sell to the fraternity a good machine at a fair price. Photographers can buy direct from us, if they cannot procure them of their dealers.

Pay no attention to the "CAUTIONS" of other parties, who intimate that our machine infringes theirs. Examine, and BUY THE BEST.

> W. G. ENTREKIN, Patentee, 4382 & 4384 Main St., Manayunk, Philadelphia, Pa.

Number 127.

50 Cents.

THE

PHILADELPHIA, 1972.

Photographer.

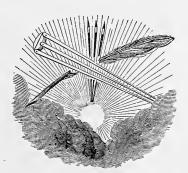
AN ILLUSTRATED MONTHLY JOURNAL,

DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIO ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

July, 1874.



PHILADELPHIA:
BENERMAN & WILSON,
PUBLISHERS.

Subscriptions received by all News and Stock-Dealers.

FIVE DOLLARS PER ANNUM, IN ADVANCE.

Sherman & Co., Printers, Philadelphia.

SOMETHING NEW! See Advertisement inside.

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Mosaics, 1874.

MOULTON, L. V. Rapid Photo-Washer. NASON'S BACKGROUND CARRIAGE, CAMERA STAND, &c. NEWELL'S IMPROVED BATH-HOLDER. Pattberg, Lewis & Bro. Passepartouts, &c. PHENIX FERROTYPE PLATES. PHOTOGRAPHER'S POCKET REFERENCE-BOOK. PHOTOGRAPHIC PUBLICATIONS. PHOTOGRAPHER TO HIS PATRONS. Powers & Weightman. Photographic Chemicals. PREMIUMS FOR 1874, for New Subscribers to "Philadelphia Photographer." PRIZE PICTURES. RAU, GEO. German Albumen Colors. RICE & THOMPSON. Photo. Stock House. ROBINSON'S NEW PHOTO. TRIMMER. ROBINSON'S METALLIC GUIDES. ROHAUT & HUTINET. Photographic Mounts. Ross' Portrait and View Lenses. ROTTER, GEO. & Co. Albumen Paper. RYAN, D. J. Photo. Stock Depot, Chromos, &c. SAUTER, G. Passepartouts. SCHWARZE & VALK. Photo. Papers. SCOVILL MANF'G. Co. Photographic Materials. "S. D." CAMERA BOXES. SEAVEY L. W. Scenic Artist, Backgrounds, &c. SNELLING, H. H. Lebanon Rustic Frame. "Something New." STEINHEIL'S NEW APLANATIC LENSES. STEVENS, CHAS. W. Photographic Goods. THAYER & Co., N. C. Photo. Goods and Frames. THE PRACTICAL PRINTER. Vogel's Hand-Book of Photography. WAYMOUTH'S VIGNETTING PAPERS. Weller's Stereoscopic Treasures. WET PHOTOGRAPHIC BOOKS. WILSON, CHARLES A. Photographic Goods. WILSON, HOOD & Co. Photo. Materials, &c. WILLY WALLACH. Albumen Paper. WOODWARD, D. A. Solar Cameras. ZENTMAYER, JOSEPH. Lenses. ZIMMERMAN BROS. Photographic Stock Depot.

Lantern Slides!

AND

MAGIC LANTERNS.

We have just received from France,

4000 LANTERN SLIDES!

Views of all parts of the world-which we shall exhibit at

The Chicago Exhibition,

And give photographers and others an opportunity to make selections from them at very low prices.

ANY ENTERPRISING PERSON

Can make money by giving exhibitions to the public.

HOW IT IS DONE.

Local Secretary Hesler, who has just purchased a lot of these elegant slides from us, sends the following:

EVANSTON, ILL., June, 1874.

Dear Sirs: The transparencies you sent are duly at hand. I must say I am happily disappointed in them, their beauty of selection and perfection of execution are really marvellous. I have shown them to several gentlemen who have traveled over these countries, viz., France, Germany, Switzerland, Egypt, and the Holy Land, and all say that they really get more satisfaction in studying and viewing these pictures, as I show them with Marcy's Sciopticon, than they get in traveling over the same countries. I wonder that more photographers do not possess themselves of a Marcy's Sciopticon, for with these views they can fill in very profitable evenings. I do it thusly: Having the pictures and lantern (Marcy's, which I believe is the best in use), let the people know you have them, and will give Parlor Exhibitions at any person's house who wishes to entertain friends. For this purpose you want some few comics; most of these you can easily make of a local character. Make a few transparencies of the babies crying and laughing, leading men, and host and hostess, if possible. Have enough foreign and home views, that you need not always show the same things. For such an entertainment you can get from \$10 to \$20 per night; and this not only pays you but advertises you in the best possible manner. Try it! you who can command your evenings, and, my word for it, you will find it to pay you.

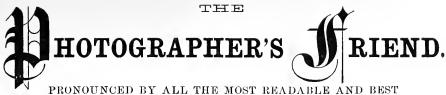
This shows what any one else may do with a good lantern and an assortment of slides.

COME TO CHICAGO!

And select for yourselves. You will not have such a chance again. A Marcy's Sciopticon and one hundred slides can be carried in your hand. We shall have them there ready for delivery.

BENERMAN & WILSON,

Cor. Seventh and Cherry Streets, Philadelphia.



PRONOUNCED BY ALL THE MOST READABLE AND BEST PHOTOGRAPHIC JOURNAL EXTANT,

IS FOR SALE.

WHAT PHOTOGRAPHER WILL STEP FORWARD AND UNITE TO HIS OTHER BUSINESS AN INTERESTING AND PROFITABLE OCCUPATION FOR LEISURE HOURS.

This Magazine is offered for sale for Satisfactory reasons, which will be patent to all who will read this circular. The "Photographer's Friend" pays as a business investment, and there are 5,000 Photographers in the land who are ready to aid the one who undertakes the management of this

MOST POPULAR LITERARY

COMPENDIUM UPON PHOTOGRAPHY.

BALTIMORE, MD.

Being unable, from the pressure of my increasing wholesale trade, and the demands my large gallery makes upon my time, to devote the proper attention to the publication of the "Photographer's Friend," I am compelled to offer it FOR SALE. I do so reluctantly, for it is difficult to part with what has been my companion and solace during leisure hours, and that too in the full tide of success, but the demands of business and of health are imperative.

My object, in placing before the photographic public a standard Journal which should be a complete epitome of the passing events, and which should also be the vehicle for sterling information, has been attained, and I can resign the "Friend" into other hands with the proud knowledge of having earned the appreciation and support which has been so liberally bestowed upon me by the friends and patrons of the "Photographer's Friend."

The name of the Journal stands deservedly high with the profession, for it has never stooped to the performance of a base action, never advertised an unjust thing, or lent its name to any of the impositions which have been endeavored at various times to foist upon the fraternity; therefore, the person who purchases this Magazine has no bad record to overcome, nor attempts the revivifying of no Effete and dismantled hull, but takes charge of a literary enterprise which is today a LIVING SUCCESS.

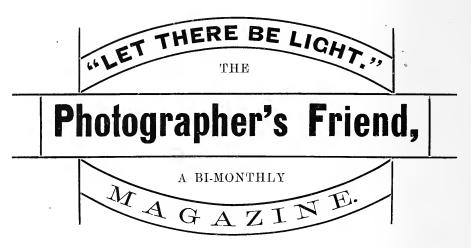
I am now on the fourth year of its publication; having had the primary idea of a gratis work, but the high favor the initial number gained, their rapid exhaustion, and constant inquiries for more, made the issue of a regular journal as much a necessity as a choice, so the "Friend" was made a quarterly. In that form it was subscribed for so eagerly it was again reconstructed to a bimonthly shape as it is now issued.

Its value as an advertising medium has been recognized by all the trades which deal with photographers, and the revenue from this source goes a long way towards the expense of publication.

I place this magazine in the market frankly and fearlessly, feeling assured that an examination is all that is required.

Full particulars and ample information by addressing

R. WALZL, BALTIMORE, MD.



DEVOTED TO THE PHOTOGRAPHIC ART.

THE FAVORITE JOURNAL OF THE FRATERNITY.

HANDSOMELY ILLUSTRATED

AT EACH ISSUE BY SOME ONE OF OUR LEADING OPERATORS.

IS OFFERED FOR SALE.

You are all familiar with it. Every one appreciates it. It is a good thing and it pays. WHO WILL BECOME THE OWNER!

Make inquiries into this matter; chances like this are not often offered nor suffered long to remain in the market. Address all communications to

RICHARD WALZL,

46 N. Charles St., Baltimore, Md.

HANCE'S

PHOTOGRAPHIC SPECIALTIES.

ARE SOLD BY ALL DEALERS AS FOLLOWS:

mance's Double Toulzed Collouion,
Per pound, \$150. Half-pound, 80 Cts
Elbert Anderson's Portrait Collodion, Per pound, \$1.75Half-pound, 90 Cts
Per pound, \$1.75Half-pound, 90 Cts
Hance's White Mountain Collodion,
Per pound, \$1.50Half-pound, 80 Cts
Curtis' Niagara Falls Collodion, Per pound, \$1.50. Half-pound, 80 Cts
Per pound, \$1.50Half-pound, 80 Cts
Hance's Peculiar Portrait Collodion,
Per pound, \$1.50Half-pound, 80 Cts
Trask's Ferrotype Collodion, Per pound, \$1.50
Per pound, \$1.50Half-pound, 80 Cts
Cummings' Grit Varnish, Per Bottle, 40 Cts
Per Bottle,
Hance's Silver Spray Gun Cotton,
Per Ounce50 Cts
Hance's Delicate Cream Gun Cotton,
Per Ounce, 80 Cts

Gill's Concentrated Chromo Intensifier,
Per Bottle, 50 Cts.

Hance's Ground Glass Substitute,

Hance's Bath Preservative Heads off Pin Holes and all Bath Troubles,

TRADE MARK:—THE BEST GOODS—FULL MEASURE.

TRY HANCE'S PHOTOGRAPHIC SPECIALTIES.

See Testimonials in former and future advertisements.

SCOVILL MF'G CO., Trade Ag'ts. ALFRED L. HANCE, Manufac'r, NEW YORK. 126 N. 7th St., Philadelphia.

HANCE? SUBSTITUT

The SUBSTITUTE is in the form of a varnish; is flowed and dried the same as varnish, but dries with a granulated or ground-glass surface.

WHEREVER GROUND GLASS IS REQUIRED.

HANCE'S SUBSTITUTE ANSWERS EVERY PURPOSE.

FOR GROUND GLASSES FOR CAMERAS, FOR GLAZING SKY AND SIDE-LIGHTS, FOR OBSCURING STUDIO AND OFFICE DOORS, FOR PRINTING WEAK NEGATIVES FOR VIGNETTE GLASSES, FOR A RETOUCHING VARNISH, FOR SOFTENING STRONG NEGATIVES,

FOR THE CELEBRATED BERLIN PROCESS.

Use the "Substitute." Use the "Substitute."

PRICE, FIFTY CENTS PER BOTTLE.

LARGE QUANTITIES FOR STUDIO LIGHTS, &c., SUPPLIED LOW.

READ A FEW TESTIMONIALS:

Youngstown, Ohio, Jan. 27, 1873.

The bottle of Hance's Ground Glass Substitute came safely to hand. I selected a good piece of glass, coated it with the Substitute, and in a few moments I had one of the finest ground glasses I ever saw. I have been using it four or five days, and the more I use it the more I am pleased with it. The "surface" is fine and delicate, and a great relief to the eyes. I would not be without a bottle for ten dollars.

R. Newell & Son's Gallery, 626 Arch St., Philadelphia, Feb. 17th, 1873.

I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "promise very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past six months in my gallery, I can conscientiously pronounce them first-class in every respect. Your Ground Glass Substitute I consider one of the most practical and useful articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

R. Newell

TRY

HANCE'S BATH PRESERVATIVE,

PRICE, \$1.00.

GUARANTEES REGULAR AND GOOD RESULTS.

N. C. THAYER & CO.

Would say to Western
Photographers
that they claim to have
the largest,

the finest,
and the

best stock of

AM. OPT. CO.'S

APPARATUS

FIRST-CLASS

Chemicals,

BEAUTIFUL STYLES

OF

Frames,

252

A B A S

AVENU

ANI

ALL

PHOTO- RAPHIC

Requisites,

IN THE

WEST,

AND PRIDE THEMSELVES IN KEEPING
ONLY

First-Class GOODS.

THEY EXTEND A HEARTY WELCOME

To every photographer who may be disposed to call upon them, and will make it to the advantage of all who do.

We indorse the Convention,

And mean to do all in our power to promote its success.

CHICACO.

THE HUNDREDS OF PHOTOGRAPHERS

Who visit Chicago during the coming National Photographic Association Convention and Exhibition, this month, will, if they act wisely, not only see and hear everything there, and learn all they can, but they will also look about the great Western Headquarters in order to find the most advantageous place to buy a stock of goods, and to deal in the future.

Put the number down so you will remember it-48, 48, 48, 48, 48, 48, 48, 48— 48 Madison Street, and so you will be sure to find it. We speak of course to those who propose to make such an examination, for it will pay them to inspect the carefully selected and new stock of Photographic Necessities on exhibition and for sale by Messrs. J. P. BEARD & Co., at No. 48 MADISON ST., CHICAGO. Although this house is not so well known in the West as others are, for the simple reason that it is a new one, yet be assured it is as amply prepared as any other to supply the wants of the photographer in every respect. The conductors began business with the following purposes in view. 1. To keep a splendid stock of goods constantly on hand, so that, 2. All orders may be expected to be filled promptly, usually the day they are received, and all the goods ordered to be sent exactly as ordered, without substituting other goods for them. 3. So to take advantage of every opportunity to purchase goods at the best figures as to enable them, not only to defy competition in prices and in quality, but as a usual thing to undersell. 4. Good goods will always be given the preference, although ample preparation is made to supply anything the purchaser may require. No doubt photographers will appreciate these advantages, as they always do. No pains whatever will be spared to not only obtain their confidence, but to retain it, so that whether near or far, you may send your orders to them, large or small, feeling sure that they will have the best personal attention.

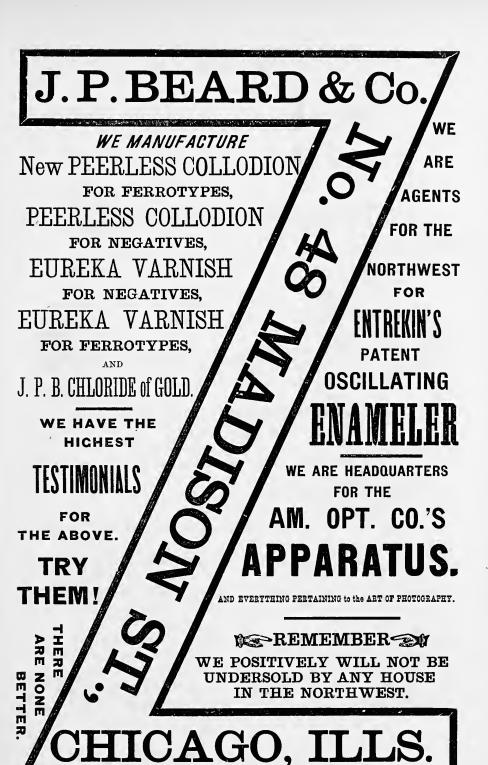
Mcssrs. J. P. Beard & Co. beg to announce that they have added to their new establishment a cosy private office, to which photographers visiting the Convention are specially invited, and where they will find all the conveniences for letterwriting, mailing newspapers, and for chatting together, and for resting themselves between the sessions-in fact where visitors can make themselves perfectly at home. Meanwhile, or after the Convention, whenever you come to Chicago, before you buy your goods, be sure to visit our new and beautiful rooms. And if you are so unfortunate as to be unable to come and see us, intrust us with your orders, and we guarantee satisfaction, both in goods and prices, Our stock is all new, and fresh, and good. Please read our other advertisement opposite, and send to us for circulars.

By reference to the N. P. A. circular, which we will send you if you have not received a copy, you will see that No. 48 is only a short walk from the Grand Exposition building and is marked No. 2 on the map. So remember No. 2, too.

Very Respectfully,

J. P. BEARD & CO.,

48 Madison Street, Chicago.





AT THE

"Great Central,"

During Convention of N. P. A., with the largest and most complete stock of

PHOTOGRAPHERS' SUPPLIES

Ever shown in the West!

Prices that will please you!

CHAS. W. STEVENS

50 State Street, CHICAGO.

Only 5 minutes walk from Exposition Building, and near all the leading Hotels.

Cantage Central"

DON'T NORTH STATE

All are Intige.

Photographers' Head and Tallers A. 1874.

We are informed that some of our competitors are advancing the prices of

And we have been requested to do the same, but have declined to enter into any combination whatever. Photographers can rest assured that we shall adhere strictly to our LOW PRICES, as published in our Catalogue of August, 1873, until further notice. The prices therein quoted are the lowest yet made, and all who have not received that list will please send us their address, when it will be promptly forwarded. Note our very low prices on

FERROTYPE PLATES, CAMERA BOXES, &c.

Everything sold at bottom figures, and all orders executed to the letter, and with the greatest of promptness. Agents for the Northwest for

WESTON'S ROTARY BURNISHERS, WOODWARD'S SOLAR CAMERAS, And SCOTCH ALBUMEN PAPER.

We hope all those who have not tried the Scotch Albumen Paper, will give it a trial, as it is giving universal satisfaction, and is having an immense sale. We have it in White and Pink.

Prices furnished on application for Woodward's Solar Cameras, either the Reflectors or Direct Printers, with license attached. Any one desiring a license for the use of Solar Cameras, can get the same of us at the price charged by Mr. Woodward, \$40.00.

Don't forget to order a Weston Burnisher; we are selling large numbers of them, and the fine effect produced from their use is commending itself to all.

Remember, we carry the LARGEST STOCK IN THE WEST, and owning the land and the building

we occupy, we are fully prepared to give you rock bottom prices on everything.

RICE & THOMPSON'S MAMMOTH STOCKHOUSE, 259 Wabash Ave., CHICAGO.

IMPORTANT TO PHOTOGRAPHERS.

TAKE NOTICE!

WHAT PARTIES SAY, WHO ARE USING

J. A. ANDERSON'S CAMERA BOXES.

OFFICE OF CHICAGO PHOTOGRAPHIC AND COPYING COMPANY, 320, 322, 324, & 326 State Street.

J. A. Anderson.—Dear Sir:—The 10x12 Conical Bellows Camera you made us gives entire satisfaction. It is finely finished, and the working parts are all complete in their action. We now have seven of your boxes in our operating department and shall discard all others (the so-called "Success") for your make, as we will save the price in repairs. They are all in constant use every day, and stand the test better than any other make we have used. For durability, accuracy, and cheapness, they certainly have no rivals; they compare favorably with the A. O. Co.'s boxes, and are far superior to anything else in the market.

(Signed),

JAS. S. NASON.

J. A. ANDERSON'S

NEW POSITION AND BABY CHAIR, COMBINED.



THE
HANDSOMEST,
MOST
COMPLETE,

AND CHEAPEST



PIECE OF APPARATUS EVER OFFERED TO THE PHOTOGRAPHER.

BUY NO IMITATION.

SEND FOR PRICE LIST.

Photographers can save from 10 to 20 per cent. by sending direct to the manufactory for Apparatus.

TESTIMONIAL.

ELGIN, April 5th, 1874.

Mr. J. A. Anderson.—Sir:—The Camera Boxes prove to be all that I expected. The 11 x 14 is superior to any that I ever used; it is a beauty, and I am proud of it. The cheapness, too, is an item especially with me at this time, having lost all the contents of my gallery by fire. I am obliged to you for your favor.

Yours,

G. H. Sherman.

(See other testimonials in special advertisements).

J. A. ANDERSON, (Late Anderson & Bixby),
65 East Indiana Street, Chicago.

PHOTOGRAPHERS, ATTENTION!

YOU NEED NOT BUY THE GLACE, CALIFORNIA, OR ANY OTHER ENAMEL PROCESS. EXAMINE THE NEW

Enameled and Embossed

PHOTOGRAPHS,

AND PATENT IMPROVED PRESSES FOR MOULDING THEM.

INTRODUCED BY

Messys. E.L. BRAND & Co. 596 WABASH AVENUE, CHICAGO.

FULL INSTRUCTIONS SUPPLIED GRATIS!

Messrs. E. L. BRAND & CO. desire to state to Photographers that they purchased the process for making the SOUVENIR photographs in France, but finding it incomplete and impracticable, they have diligently experimented until they have a perfect process. But after all, the great desideratum is a properly constructed PRESS for moulding the pictures, or in other words, raising them in cameo style. Such a machine Messrs. Brand & Co. have perfected, and offer to the photographers at popular prices.

They are complete in themselves, embodying a press and dies of all popular sizes. They are made on entirely new principles, and will commend

themselves to all who see them. They will be shown at



where a room will be furnished in the Exposition Building for the accommodation of those

who wish to learn how to make the SOUVENIR PHOTOGRAPHS without charge.

They are going to be the leading picture, and will pay A SPLENDID PROFIT. Do not pay for ANY process until you see ours, with its many improvements, for we can give you the best process in the world, GRATIS. For further particulars, address

E. L. BRAND & CO.

596 Wabash Ave., Chicago, Ills.

OFFICE OF

CHAS. D. FREDRICKS & CO. Photographers.

587 Broadway, opposite Metropolitan Hotel,

New York, June 1, 1874.

To the Photographers of the United States:

All authority given to parties to act as our Agents, in instructing and selling our Glace process, is hereby revoked, from this date.

C. D. FREDRICKS & CO.

Our Mr. Hugh O'Neil, after several months' experiments, has succeeded in making simple and practical the Enamel or Glace process for Photographs, of all sizes. The process is easy and rapid; one smart boy or girl can prepare one hundred Imperials or Cabinets in two hours, and emboss and mount them next day, in same time. Our customers willingly pay double price for these beautiful pictures, which, since we have introduced them, are so much sought for, that all leading photographers in this city and elsewhere are obliged to make them.

Our price for instruction ranges from \$50 to \$100, according to locality. Among our pupils we may mention the names of Sarony, Gurney, Howell, and others of this city; Gutekunst and others of Philadelphia; Kuhn & Cummins, Bendann, and others, of Baltimore; John A. Scholten, of St. Louis; W. M. Knight, Buffalo, and many others too numerous to mention.

We are well aware that the photographic community have often been imposed upon, by persons pretending to sell something valuable, which afterwards proved to be of no practical use, and for this reason we will send a specimen of our work, which any photographer, possessing ordinary ability, can equal, free of charge.

Having been informed that certain inexperienced parties, in this city, pretend to give instructions in our process, and as our legalized agents for giving such instructions will not reach your locality, we offer it to you for the sum of \$25, including our Mr. O'Neil's processes, for all the different branches of photography, which will entitle you at any time to visit our gallery and get thoroughly posted by ocular demonstration, should you so desire. We also guarantee to keep you posted in any improvements which we may make in our Glacé process. Should you accept our proposition, please send for the agreement, sign it, and return to us with draft for the amount specified, and we will immediately forward you a similar paper, signed by us, together with the process for Glacé and Photography, with the necessary working materials which we will send C.O.D. as per price list, viz. :

DIES FOR EMBOSSING.

Card size	\$4	00
Imperial or Cabinet size	6	00
4-4 size	8	00
MATERIALS.		
Best French Gelatineper lb.,	\$1	00
Card Board for backing, Cabinet sizeper 100,		50
66 66 4-4 size	2	00
Press, in which all the different size dies can be used (an ordinary letter press		
will answer)	7	50

Many photographers use only the cabinet size for their Glacé pictures, the other sizes can always be obtained, if desired. Yours respectfully,

C. D. FREDRICKS & Co.

IS A

New Advertising Medium **FOR**

Similar to "The Photographer to his Patrons," but written photographers themselves. Its real intention is to supply you a means whereby you can cheaply advertise your business, and at the same time place in the hands of your eitizens an argument in favor of photography, a few kindly counsels as to how to prepare for having a picin different style, and more in keeping with the advanced state of photography, and ture taken, and how to appreciate and understand a good picture when they get it.

TRY SOME! **BUY SOME!**

charge. The adjoining cut represents one of our cover designs. Plain type will be more popular. The price is \$20 per 1000, \$12 for 500 copies. It is tered among the public. We are assured that the new one will become even used if you prefer it. printed on fine tinted, calendered paper, and your own card on the cover free of Of the other "leaflet" which we issued, over 600,000 copies were sold and scat SAMPLES SUPPLIED FREE OF CHARGE

BENERMAN & WILSON, Photo. Publishers,

Seventh & Cherry Sts., Philadelphia.

SOMETHING NEW.
SOMETHING NEW.
SOMETHING NEW.
SOMETHING NEW.
SOMETHING NEW.
SOMETHING NEW.

SOMETHING NEW WILL BE HANDED TO ALL THE PHOTOGRAPHERS WHO

Visit the Chicago Convention!

THOSE WHO CANNOT ATTEND WILL BE SENT A COPY ON APPLICATION TO THE PUBLISHERS.

IT INTERESTS ALL,
WILL MAKE BUSINESS,
WILL SAVE TIME,

HELP RAISE PRICES.

(See Advertisement on opposite Page.)

BENERMAN & WILSON, Photo. Publishers, **Philadelphia**, **Pa**.

THE PRACTICAL DRINGER DELICATION DELICA

A new work on Photographic Printing is

NOW READY!

ENTITLED

THE PRACTICAL PRINTER,

By CHAS. W. HEARN,

A gentleman who has devoted several years to photographic printing especially, and who is now engaged at it as his constant occupation.

The work gives all the instructions that a beginner could possibly want in detail, and is what the title indicates—practical.

It will also be found of invaluable service to any photographic printer, be he ever so skilled.

Too little attention has heretofore been given to Photographic Printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create

REFORM

in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

For Contents see the opposite page.

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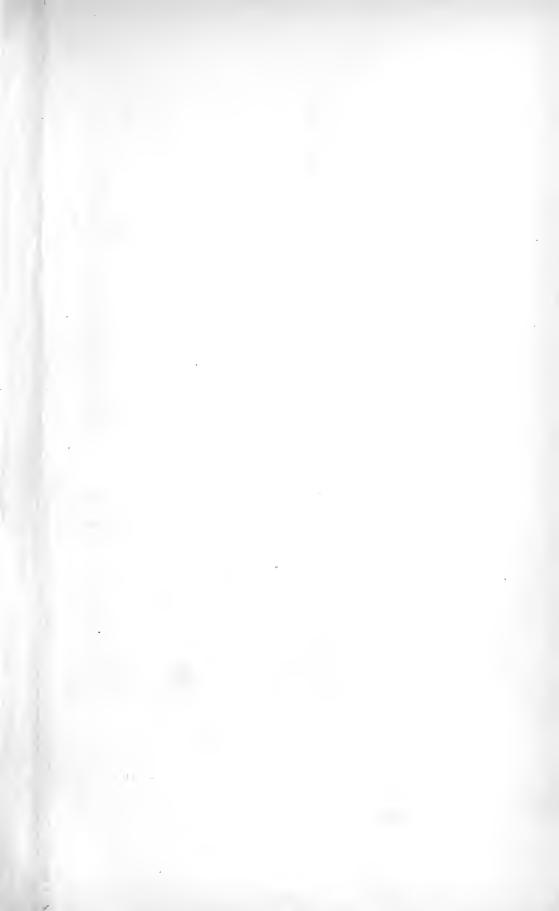




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Philadelphia Photographer.

Vol. XI.

JULY, 1874.

No. 127.

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ONCE MORE THEN—CHICAGO.

A FEW more words before we meet you all on the shores of Lake Michigan. the time approaches, and matters assume form and become more and more settled, we are favorably impressed with the fine prospects for the National Photographic Association, at Chicago. The photographers of the Northwest, and particularly of the city of Chicago, are a host, not only in numbers, but in enterprise and enthusiasm, in any matter in which they become interested. They are wide awake, and the signs are all auspicious for the grandest meeting we have ever had. Chicago rebuilt is becoming one of the finest cities in the country; we shall have there the finest hall we have ever met in, we expect to see the finest display of photographs ever exhibited, and we have no doubt that all who go will have the finest time they ever had. We want to see all there and take every member by the hand. Do not forget the mammoth offerthe great eamera and lens that are to be drawn. We advise all to secure tickets before the convention, as there may be none to be had at Chicago. Arrange your business, appropriate your cash, prepare and send off your specimens, and then-go yourself. We shall probably take down the handsome collection of foreign pictures which hangs in our office, and exhibit them at Chicago. They are worth seeing.

AN EXCELLENT WORK ON PHO-TOGRAPHIC PRINTING.

THE PRACTICAL PRINTER. By C. W. Hearn (Young Printer) 196 pages; 80 illustrations, with a cabinet print from negatives by F. Gutekunst, Philadelphia, an example of printing by the author. Cloth bound. Price, \$2.50. Published by Benerman & Wilson.

This is the new book we announced last month as in press, and we feel sure it will supply a want that has long been felt.

Nearly all our best photographers admit that the printing department has been too much neglected. No pains or expense have been spared to construct the best skylights, work the best chemicals, and the most approved formulæ; to employ men of the highest abilities in the dark-room, under the skylight, and in the retouching department; all that the negatives may be strictly first-class. Oftentimes all the energies of the proprietor are given to the negative department. He buys books on chemistry, light, art, and studies them all diligently, but the printing department is left, in a great measure, to take eare of itself. No books are ever bought for the printer; he may not have an opportunity to even see the monthly journal his employer takes for his own especial benefit The printer picks up what he can and does his best, but neither he nor anybody else dreams that any artistic

skill or study is required to produce a good print. If the prints are not right the negatives must be at fault. They are all printed on one brand of paper, all prepared in the same way, and some prints turn out well, while others do not; if there be any fault it is attributed to the negatives! This is the way it has been to a great extent. There has been a want of union, or harmony of working between the departments. The negative maker has often been surprised that some of his most beautiful work has produced such miserable prints. He has often seen, too, that the proof from a negative, printed perhaps on any old piece of paper that came to hand, probably left over from the day before, would be better than any afterwards printed in filling the order. This would arise from the printer not understanding the conditions necessary to make the best print from that particular negative.

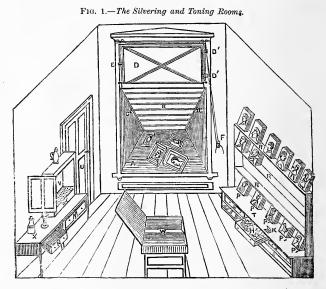
Mr. Hearn as a practical man has seen all these things, and being strongly impressed with the importance of having more light in this direction, has prepared this book. It is mainly a transcript of his own

experience; and as every thorough man in any business knows how much depends on what are often considered minor details, and which are often overlooked by experienced teachers, the explicitness of this work will be appreciated. It is an important feature of it, and all who study it for information will find it a perfect textbook for the printingroom. There seems to be nothing omitted. Every condition and quality of negative, its peculiar features, how to study it, and the treatment it should receive in the

process of printing, the selection and preparation of the paper, the effect produced by certain processes and methods of working, and every point, apparently from the first inspection of the negative to the finishing

of the print, is anticipated, and the necessary instructions to cover all contingencies given. Any proprietor who will place this book in the hands of his printer will no doubt find an improvement in his work, and be himself relieved of much responsibility of looking after that department. It is especially adapted to those who are learning or striving to improve, though it is full of useful suggestions, and will be a great help in the hands of the most experienced. The author has been known to the readers of this journal for several years past under the nom de plume of "Young Printer." He is yet a young man, but by diligent study and observation has made himself a master of his business. The book is well illustrated, and contains also a specimen print by the author, from negatives by Mr. F. Gutekunst, of this city. We propose to give a few illustrations from the work, showing the nature of the instruction given, and how minutely the author goes into the details of all his work. The annexed is a cut of "The Silvering and Toning Rooms."

"The principal use of this room is to sen-



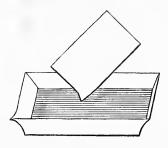
sitize the paper after it is albumenized, or in the case of plain paper, after it is salted, and then later in the day, when the sensitizing is through with, to tone and fix, as well as to wash the prints, all of which things can be done without at all interfering with each other.

"A is a dark curtain, which in the figure is partly raised, but during the silvering and toning processes it is brought down to A', and the white bleached cloth screen B (which is shaded in the figure so as to show it more distinctly) covers the rest of the glass, and thus, in the toning, a soft and diffused light is given to that part of the room (the shelf C) where the toning is done. D is the silvering-dish, and D' is the place where this silvering-dish is kept when not in use. E is where the kettle of potash is kept for the purpose of cleaning old plates. F is where the nitric acid tray is kept. GG are two sinks. H is a shelf on which the toning-bath bottles may be kept. K is a rack with three overlapping pieces of wood, to which there are a number of spring clips attached, which hold the pictures while draining, as they are removed from the water. L is a washing-tank which has a perforated false bottom through which the water passes into the lower part and thence into the waste pipe L'. The stopcock M is adjusted after the tank becomes threequarters filled, 'so that it will permit the water to flow out as fast as it enters through the pipe N. P P is an overflow pipe which conducts the water, when it reaches that place, into the waste pipe L'. R is the place where the hypo dish is kept. S is the place where the two-gallon hypo bottle is placed This bottle is always kept full of a saturated solution of hyposulphite of sodium. V is the door that leads into the drying-room."

In the second chapter, on "Silvering the Albumen Paper," he says:

"Take up the upper right-hand corner of the sheet (the length of it should run from your right to your left hand) with the right hand, and the lower left-hand corner with your left hand, and let the sheet assume a curved position, the right hand being highest. Lay the lower left-hand corner of the sheet (which you have hold of with the thumb and forefinger of the left hand) on the upper part of the dish (see the Fig.), midway between the right and left hand corners, keeping hold of the turned-up corner while it is there, for the purpose of guiding the corner to its proper place in the dish.

"As you hold the sheet at present, the upper right-hand corner is up in the air, being held there with the right hand.



"Now draw the corner that is on the solution gently towards the lower left-hand corner of the dish, and at the same time slowly lower the paper on the bath with the right hand, so that by the time the lower left-hand corner of the paper reaches its proper place, the whole of the sheet will be lying in the solution.

"The drawing of the paper towards you drives the bubbles that may be on the bath before the sheet, so that when the sheet is all on the bath, the bubbles, if there are any, will be along the edges of and beyond the paper. A slight tap on the back of the paper may be necessary, but that is all."



Figs. 21, 22, and 23 are illustrations from Chapter X, on "The Treatment of the Negatives before Printing." Fig. 21 represents a print from a negative that gives hard, black shadows; Fig. 22 shows the result of a proper manipulation of the negative before printing; and Fig. 23 shows how the treatment may be carried too far and give a flat, insipid-looking picture.

We would gladly have given a whole chapter as a specimen of the work, but our space will not permit. We commend it to the perusal of all interested in this department of our art, and trust that our purpose in publishing it may be fully realized by its benefiting all who read it. The advertisement will give you an idea of the contents.

SOAP AND ALCOHOL.

WE learn from a correspondent in the West, that he has been threatened with prosecution for infringement, by a party who has a patent for a varnish composed of castile soap, glycerin, alcohol, and ammonia, because said correspondent has been lubricating his prints with a solution of soap and alcohol, previous to passing them through the burnisher.

We submitted this question to one of the ablest patent lawyers in this country, and have his professional opinion. He says, if one ingredient be omitted from a patent compound it is no infringement. We think our brethren may continue to lubricate and to burnish, without regard to the threats of this new claimant.

RALLYING WORDS.

BY G. H. LOOMIS.

I FIND in perusing your journal, many good suggestions relative to the plans and purposes of the National Photographic Association, and the improvements which each successive year should show over its predecessor. If I am not too late for the July number, I would like to restate and emphasize a few of these points.

Though I have not before me the preamble and constitution of the Association, it is safe to say, that the cardinal objects are, progress in the art we practice, and the cultivation of those social amenities and courtesies which inspire reciprocal good and stimulate healthy and kindly emulation.

No unprejudiced observer can have failed to see, that since the organization of our national and local associations, great, and indeed, wonderful progress has been made in our beautiful art. This progress has been the result of a free and generous interchange of thought upon the theory and practice of photography, in the which that mean spirit of selfishness, which will neither elaborate an idea or intrust it to another, has been gradually and we hope permanently banished. Though in business pursuits, most if not all of us are "playing for money," it is a refreshing sight we occasionally enjoy when the skilful and suc-

cessful in the game "show their hands," and explain to the uninitiated how it was done. It has always proved a losing investment when we hide our talents, be they few or many, instead of putting them at interest. There are many splendid gems enveloped in secretive and selfish brains, that would soon be utilized and rendered productive if they could be got at or drawn out by other and more practical minds. Cobwebs are not considered good material, either to clothe or decorate the advanced guard in any enterprise. They are more becoming the Rip Van Winkle snoozer, and who that would, unlike him, avoid a sorry waking, had better take shorter naps.

We say then, brethren, travel more, observe more, study more, and above all, we beseech you to forget not the assembling of yourselves together, for inasmuch as ye do these things, will your measure of success be more abundant and satisfactory.

Heed Hesler's cordial invitation to "go West;" you will never regret it, though it takes next to the last dollar that's owed you. The destroyed and rebuilt city of Chicago and its environs will astonish you, and a drive through it is alone worth a pilgrimage across the continent. We say then don't fail of the present double inducements to attend the Convention and Exhibition. Send or take with you some specimens of your skill and taste as an artist, at the same time be the bearer and exponent of some live practical thoughts and suggestions relating to your art, its advancement, elevation, and perfection. Don't forget, however, that the soul of wisdom as well as of wit is brevity.

Sift out the chaff, and as Capt. Cuttle would say, "give us solid chunks of practical common sense." Our reports are getting too unwieldy, voluminous, and expensive, and to avoid further inflation we must boil down our thoughts and concentrate our ideas. We beg pardon, however, for giving so much unsolicited advice. As we were saying, our Chicago friends are working too hard to deserve failure, and in appreciation of their efforts as well as our own good, let us respond generously to their call. Let us throw away our head-cloths, emerge from our pent-up laboratories, and bid a temporary

au revoir to business, and make Chicago the central point of a pleasant and profitable vacation. Such as have grievances to be redressed, doubts to be solved, and wrongs to be righted. I mean of course, those that have a connection with the Association, our advice is to meet with your brethren in convention assembled, talk over the matter in a spirit of equity and forbearance, and while yielding nothing to wrong, strive to reach the right through the agencies that heal rather than aggravate any such dissensions that may exist. To such as are qualified for and desire official positions, we say put in an appearance. The martyrdom that generally waits on these honors is worth experiencing, and it ought to be "passed round." During good behavior is too long a term, and for such as abuse their privileges, resignation or removal is a duty, and retirement a blessing.

We believe in rotation always, provided that we are outside of the line. Having once filled a "local" position, involving some little personal experience, we have ever since had a "fellow feeling" for others likewise honored, and while the situation is very useful and somewhat agreeable, it has at the same time a little of the arduous about it, just enough for me'to ask Brothers Ryder, Rhoads, Fitzgibbons, and Baker, to join me in one glorious hurrah for the health and success of the present incumbent, Brother Hesler. If in conclusion I do not specially mention the elective board, it is not because my condolence is either local or limited. More, my brethren, when I meet you in Chicago.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

VII.

HERE we are on Italian soil,—not exactly that either, for we are in Venice, and soil is a scarce article here. We were awakened at 2 a.m., to be funned! Yes, funned, like so much albumen paper. We were huddled into a room, the air in which seemed to become at once filled with dust, to smell strongly of sulphuric acid and chloride of lime, and each moment to grow hotter. Our baggage was also spread out, and when

we all began to choke and sneeze, the doors were opened, and we were let out, fumed, purified, and guaranteed not to carry any disease into Italy. Four hours after we were in Venice, floating up the Grand Canal in a gondola. After a good breakfast, we proceeded at once with feasting upon the art treasures of this wondrous city. Of its 15,000 houses, 147 canals, 117 islands, and 378 bridges, I would like to tell you all, but I am warned against attempting to write a book. Wiser ones have done that, and besides, the best of lantern slides can be had in profusion of Venice, which with the other will be quite as satisfactory, only you cannot ride in a gondola. Gondola riding is rest, and had any one at any time during the enjoyment of that luxury, come to me with any sort of a fair offer for the Philadelphia Photographer and the remunerative office of Permanent Secretary of the National Photographic Association, and its glowing perquisites, I think I should have been tempted to sell out, buy a gondola and two oarsmen, and stay in Venice.

The first thing that impresses you in Venice, after you are accustomed to the novelty of the streets of water, is the quiet of the city. The streets are innocent of any sort of wheeled vehicle, or of horse's hoof. Think then how different must be the industries of a city like that from those of our own busy cities. The principal

noises of Venice are made by the gondoliers, who shout "turn to the right," or "the left," as they approach a turn in the canals, and of the cries of the vendors of merchandise, who carry their wares upon their heads. Among these latter some very picturesque sights are to be seen. I noticed among others, almost daily, a tall, handsome fellow, with a great pumpkin on

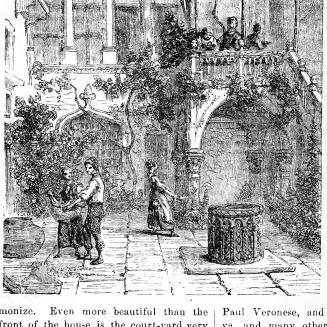


As loud as he could.

his head, shouting as loud as he could, until he sold his pumpkin. Pumpkin is a standard article of food in Venice. Every way we turned we saw things that were beautiful. The buildings, many of them, were once palaces, and give one all possible enjoyment in the study of architecture. It is very evident that they were erected by a very different race of people from those who inhabit them now. We visited several of these palaces, and to speak only of the buildings themselves, I never saw such a display of everything beautiful in the way of decorative architecture. The great marble fronts spring up from the canals like beautiful water-lilies. Each row of windows represents a different variety; each doorway is a wonder; frescoes once adorned the fronts, else the most elaborate carvings in marble, overtopped by cornices to harof most beautiful design and proportions, such as would cost a fortune here to possess; a veranda whose arches and columns are each a study, and in the yard the well is inclosed by bronze of exquisite design, worth now almost its weight in gold. Again, the bridges of Venice are, many of them, of great beauty. The Rialto, about which so much has been written and said, is the king of all. Twelve thousand piles were driven first to rest it upon. It is but 158 feet long and 46 feet wide, but a row of shops lines each side, and it presents a busy scene. It is all of beautiful white marble. The Bridge of Sighs is small, and not particularly beautiful, but is famous for its dreadful his-

tory. Many a millionaire has walked across its narrow length, well knowing all his wealth could never return alive. walked across it and never returned. We were led down into the dreadful dungeons on the other side, then through them under the canal, up and out into the court-yard of the Ducal Palace.

But the great attractions in Venice are the churches. Not usually noted for the remarkable beauties of their exteriors, but they contain such a wealth of art treasures as to make each one a museum of such things. Day after day we wandered among them feasting upon the works of Titian, and the Tintorettos, and of



monize. Even more beautiful than the front of the house is the court-yard very often. Here is an example. A stairway

Paul Veronese, and Bellini, and Canova, and many other great painters and sculptors. The old Church of St. Mark's,

with its five domes, is curious above all others. The ceilings and floors and walls alike are made up of mysterious mosaic pictures, some of them almost equal to paintings in oil. For eight hundred years this old pile has stood, exciting wonder and admiration. Directly in front stands its campanile or bell-tower, 304 feet high. The top is reached by a series of inclined planes, and from it there is a magnificent view of the curious city below, of the Lagoon, the Adriatic Sea, the distant mountains in one direction, and fifty miles of the far-off snowy Alps in another. The Grand Ducal Palace and library are among the chief attractions, and contain acres of pictures, which bewilder the brain to contemplate. We saw hundreds of sculptured tombs, among them that of Canova, the great sculptor; carved choir-stalls, whose every panel represents a scene in Scripture history-the work of generations; cloisters whose rich adornments make one fairly shudder at the thought of the immense outlay of labor and gold which they must have cost; single tombs which cost enough money to furnish a cemetery that would satisfy the 'most exacting; rich marbles, whose color and polish fairly dazed us; paintings and bronzes and mosaics of all varieties and

grades. Day

after day we took them

in, often for-

getting that bodies

into detail

concerning them would

but tire you.

Much may

be learned about them

from books

of travel and

from the art workswhich

our publish-

repose. To go

needed

our



Streets two feet wide.

ers offer in their catalogues.

As we rode from place to place in the gondola, we could see many curious sights. In

the evenings we gathered with the people to listen to the music of the marine band, in St. Mark's Place. This is the largest space of ground in Venice, and measures 575 feet by 268 feet, in the shape of an L. All the principal buildings and many of the finest stores front upon it. There are streets upon land in Venice, of course, but the most of them are mere passages, about only two feet wide, i. e., as far as you can reach with two feet, as was proven by actual experiment. It was a great pleasure and privilege to have the company of Dr. Vogel here. He had visited Venice before, and was therefore not a stranger, although he remarked that all seemed as new and as fresh to him as at first. At nearly every turn in this city one sees the evidence that those who erected and adorned it were artists and art lovers. Pictures for the camera bristle up about you in all directions, and really photography is one of the principal industries, for no one leaves Venice without a good supply of photographs. They are well taken as a usual thing, and very cheap, of all sizes, from carte to full sheet. The largest producer is Signor Charles Naya, who has not only very fine salesrooms on St. Mark's Place, but a very extensive manufactory, so to speak, near the Grand Canal. We visited both, and found much to interest us. We noticed before in many of the churches, a camera standing alone, exposed to some bit of carving or sculpture or painting. These were the servants of Signor Naya. He uses dry plates, and on such objects where the changes of light are not great, and where there is not much light at all, he often exposes as much as five days. Of course this cannot be done with exterior views. There are few photographic establishments in Europe more extensive than Signor Naya's. He occupies the whole of what was once an immense palace. His business is divided systematically into departments, in each of which is the usual number of assistants. Madame Naya presides over all, and we found her most agreeable and intelligent. We were courteously shown the whole establishment, and all the operations, from the preparation of the plates to the printing and finishing. Fresh water is a scarce article in Venice, and is

brought to the photographer daily. ing the prints, therefore, must be done in the most economical manner-more economical, sad experience tells me, than effectual, I am sorry to say. Signor Naya produces some very pretty results, by printing on blue paper, and then coloring the buildings, and putting in clouds. The results look like pictures elaborately colored, but they are sold remarkably low. Signor Naya understands the policy of saving his wastes, and altogether his establishment is one of the best managed I ever saw, throughout. I carried away a great weight of his pictures, and they refresh my memory of the lovely breathing-time we had in "Venice, my beautiful."

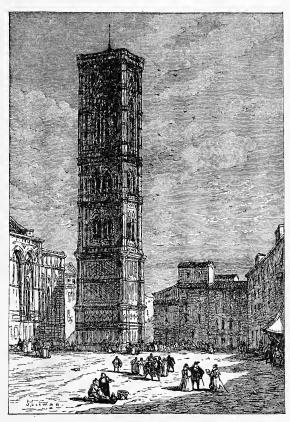
As Dr. Vogel and I floated along under the awning of our gondola, we frequently remarked how blessed it was thus to be away from the imperious duties of journalism. One day we were paid up for such sinful thoughts by bad news. Dr. Vogel's publisher had got into some distress with a work in press, and I had to lose my beloved and best of companions. He had to go back to Berlin, and I left Venice disconsolate and alone to continue my journey.

From Venice to Florence, and at once to work. Here the churches are also very attractive with their pillars, and columns, and carved work, and tapestry, and tombs, and chapels, and sculpture, and bronzes, and paintings, the love tokens of the once famous Medici-the works of Thorwaldsen, Michael Angelo, and their contemporaries. One of the most dazzling sights is the Chapel of the Princes. It is an octagonal building of one room-the interior inlaid and covered from floor to dome with precious marbles, alabasters, agates, chalcedonies, petrified woods, and precious stones of all concervable colors, wrought and polished in the highest style of art, the whole surmounted by a dome decorated with beautiful frescoes. This elaborate structure cost \$5,000,000. Now we go to others, and are in the midst of the works of Fra Bartolomeo, Andrea del Sarto, and Taddeo Gaddi. Madennas, and martyrs, and magi are pictured in profusion, and my life-dream of being in the presence of these works of the old masters is realized, but there is such a bewildering amount of all that I can hardly realize it. I ply all the art knowledge which I have ever attained, and I find it to give megreat good service, for I can enjoy and understand to a degree which I could not have done without it. Oh! how I wished that the National Photographic Association could hold one of its conventions here, and study these exquisite examples of composition, light and shade, and color! Photography would take a leap, then, that would cause more excitement than the birth of the art itself, for I am sure there is the material in the present generation of photographers to do it if it is only rightly developed.

The Cathedral at Florence is one of the wonders of that city. It was erected A!D. 1298 to A.D 1474, and displays three different styles of architecture. Black and white marble piled up in various designs make up its exterior. Five hundred and sixteen steps take you to the giant cross on the summit of the dome. The interior is one of the most superb examples of Gothic architecture in the world-555 feet long, 340 feet wide. The great Gothic arches of sombre gray inside are overcoming, and rest on columns twelve feet in diameter. When Arnolfi, the designer of these arches, saw them, he said: "God preserve my work from thunder; I have preserved it from carthquake." The Baptistery is close by, and among its treasures are the famous three bronze doors, one of which Rogers used as his model for the great bronze door at the Capitol in Washington. It was the custom in olden time to build the church, the baptistery, and the campanile or bell-tower close to but separate from each other, instead of all combined in one grand structure with a steeple as is now the custom. Therefore, we must not forget, what is perhaps the most beautiful of all campanili, the one belonging to the Cathedral here at Florence. It was commenced in A.D 1334 by Giotto, and is sometimes called Giotto's Tower. It is 293 feet high, and consists of four stories, the lowest of which is richly decorated with basreliefs and statues. Among the former are the seven works of mercy, seven beatitudes, seven sacraments, and seven cardinal virtues. At the summit are three pillars, on which Giotto intended to raise a spire 100

feet high. It is of white and black marble. One never forgets the sublime view from its top. The annexed drawing of it is from Longfellow's Flower de Luce,* from whose song we quote:

"In the old Tuscan town stands Giotto's tower,
The lily of Florence blossoming in stone,—
A vision, a delight, and a desire,—
The builder's perfect and centennial flower,
That in the night of ages bloomed alone,
But wanting still the glory of the spire."



We are now at the Palace Vecchio! On the left Michael Angelo's "David;" on the right Cellini's "Perseus," and in front of us the "Rape of the Sabines," "Judith," and many other original works of art. Up one hundred and twenty-six steps, and we are in the Uffizi Gallery, at the end of a corridor 600 feet long, lined with statuary and other works of art. On the other side is a

twin to this. Rich treasures surrounded us—a week's work at least to see them all. Fifty artists were here making abortive copies, and every few yards stood a camera dumb, but doing its work better than the women and men of the brush. I was also dumb with awe and delight. Here was Niobe, and the Venus de Medici with not a straight line about it, and the Wrestlers, and the Cymbal players, and paintings,

cameos, jewels, gems, drawings, inscriptions, bronzes, and what not. Paintings of the Dutch, Tusean, Venetian, Flemish, German, and French schools, in profu-Now through an sion. avenue lined with handwrought tapestry-ten minutes' walk and we are in the Pitti Palace, where are fourteen saloons of pictures by Carlo Dolei, Caracci, and others. Rubens'"Holy Family," Titian's "Magdalen," Rembrandt's "Old Man," Carlo Dolei's "Martyrdom of St. Andrew," are all here, with a number of Salvator Rosa's best landscapes. What folly for me to try to give you any conception of all these things. We must some day go back to them, and study some of the lessons they teach more carefully. Can any one do any sort of justice in such a hasty "view" as this to the city where Dante, and Galileo, and Petrarch lived, and where

the great masters produced their treasures in such profusion? No wonder our own Powers and Mrs. Browning, and many of our modern artists, loved Florence so they could not get away. I wanted to stay there too. I went sadly to Sig. Brogi, the eminent photographer there, and selected all I could carry of his photographs of these Florentine treasures, the last evening I was there, and overcome I proceeded to my hotel, and prepared for Rome. I wanted a bath, and an

^{*} Published by J. R. Osgood & Co., Boston.

hour or so after I called for it a porter came and announced that "the water had been or-



Whose monument is that?

dered." other hour or two, and a woman opened the door and set in a vessel immense of capacity and odd shape filled with water. I looked at it. and then at her, and do you wonder, after the days that

I had been delving around among these ancient marbles and bronzes, that I asked, Whose monument is that?

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

Photographers who have to make numerous and cheap prints have sought for a long time for an economical process which would give them acceptable pictures, and which at the same time would reduce the strength of the silver bath. Several methods of this kind have been used and published, but it must be admitted that the printing is more or less injuriously affected by the parsimony exercised in the composition of the bath. I have just received from a professional photographer, established in a provincial town, a communication on this subject which appears to me to merit attention.

The author of the letter referred to above, M. Thierrée, uses a bath composed of 80 cubic centimetres, 2.70 fluid ounces of distilled water, 12 grammes (185 grains) of crystallized nitrate of silver, and 20 cubic centimetres (0.67 fluid ounces) of alcohol at 40°. The sheet of paper should float on this bath for three or four minutes, then it is passed over a long glass rod on the albumenized side, to return to the dish the excess of liquid. Then the paper is dried. The desiccation is rapid, owing to the fact that the paper has taken up only a very little of the liquid, which contains 20 per

cent. of alcohol, evaporating very rapidly. It is easy to understand that a very small quantity of the bath is lost, and that it retains for a longer time its volume and its strength. It is used until it has fallen to 5 per cent., then it is brought back to its original strength. From time to time alcohol is added, so that the bath should always have an appreciable odor of it. The author of the communication asserts that, even during the hottest weather, discoloration never takes place in the nitrate solution; the coagulation of the albumen being complete there is no danger of sulphuration. The bath, although very weak, gives irreproachable prints, as the proportion of silver lowered to five or six degrees is quite sufficient to transform into chloride of silver the salt which is mixed with the albumen, and to convert a portion of this last into albuminate of silver; besides the paper, freed by the draining of the glass rod from the excess of nitrate which is ordinarily allowed to remain, preserves its whiteness for a longer time; in fact the albumen promptly coagulated by the sensitizing solution, becomes less permeable, and protects the substance and the sizing of the paper. The toning is obtained by the double chloride of gold and potassium, and the use of chalk. It results from an experiment made by M Thierrée, that each whole sheet sensitized in this manner absorbs only 1.05 grammes of nitrate instead of 3 grammes, which it absorbs by the ordinary process; in short the advantages claimed by the author for his process are: the consolidation of the albumen coating, the maintaining of the volume, and the purity of the bath, the rapid desiccation, the longer preservation of the sensitized paper, and economy in the use of the nitrate of silver. I inclose in this letter a print obtained by this process.

A chemist, who is already well known to photographers by divers special preparations, Mr. Encausse, also communicates to me some interesting observations concerning the silver bath and albumen zed paper. He wished to ascertain the cause to which should be attributed the fading of certain prints; for that purpose he rendered them sufficiently transparent to be studied under a microscope, and he discovered that certain

portions of them were absolutely without albumen. He thought that this arose from an imperfect coagulation at the time that the paper is sensitized, and to convince himself he operated in the following manner: After having prepared some albumen, he divided it into three parts; the first, cmployed pure and chlorided by a mixture of chloride of sodium, corresponding to 3 per cent. of albumen, gave him a very brilliant paper; the second, mixed with 10 per cent. of its weight of distilled water, and chlorided as the first at 3 per cent., gave a more even but less brilliant coating; the third portion, diluted with 20 per cent. of its weight of distilled water, was chlorided like the others at 3 per cent. In preparing these three samples of paper Mr. Encausse wished to ascertain the action of the nitrate of silver on different thicknesses of albumen, and his experiments have convinced him that in the three samples the albumen was only completely coagulated when exposed to the same degree of acidity of the sensitizing bath. The thickness of the albumen coating on paper is of very little importance in regard to the stability of the prints, but by experiments which followed those mentioned above, Mr. Encausse has discovered that non-coagulated albumen is easily dissolved in ordinary water. What will become of this albumen after having passed through the toning and fixing baths? It is true that after the action of light the metallic coating of silver preserves it, but this coating cannot be retained and solidified on those portions where the albumen is not coagulated. It results from this that the use of neutral silver baths should be rejected.

Mr. Leibert has just announced a novelty which produces here a lively sensation. Here it is:

Since about two years might be seen exposed in different stores, especially rented for this purpose, portrait enlargements exceeding in perfection everything that has heretofore been obtained in that style. These splendid specimens were signed Lambert & Vuillier. One day these gentlemen sent circulars to all photographers, in which they announced that they would disclose the secret of their process when they should have obtained a certain number of subscri-

bers willing to pay the sum which they specified. They added that up to that time they would execute for photographers all the orders which might be sent to them. At the same time they presented to the Photographic Society a series of specimens which called forth the admiration as well as the despair of all the portraitists who saw them; for after the most careful examination by the most experienced persons it was impossible to determine in what manner these prints were obtained. Now, the mode of subscription proposed by Messrs. Lambert & Vuillier is not favorably looked upon in France, and on the other hand it was inconvenient to have them execute all the enlargements which were needed. To-day things have changed. Mr. Lambert, the inventor, remaining the sole possessor of his process, has taken out letters-patent, and is preparing to grant rights to all those who apply for them through Mr. Leibert, whom he has just taken into partnership in this affair.

I assisted at an exhibition of the process made by Mr. Lambert, in the presence of several of our principal photographers, purchasers of licenses, and I declare that we were all astonished at the simplicity of the operations and the beauty of the results obtained in our presence. It was at the end of April, at 5 o'clock P.M. Mr. Leibert took a transparent positive portrait on glass by the carbon process, and placed it in the back portion of an ordinary bellows camera, half plate, furnished with its objective (aplanatic or any other) serving as amplifier. The positive, placed against the transparent glass of the window, whose remaining portion is covered with vellow paper, receives the diffused light reflected by a simple mirror placed outside the window. The enlarged image is projected into the interior of the operating-room on a collodionized and sensitized plate placed on an ordinary copying-stand. This is all the apparatus required. At the experiment at which we assisted, the exposure lasted only six minutes, notwithstanding the late hour. The developed image appeared to us rather weak, but we learned later that it was necessary that it should be so.

It is never necessary to have recourse to

intensifying; in reality the manner in which the retouches are made enables the operator to give to the large negative all the vigor of tone desirable. These retouches, which are done by hand, are applied by a process that I may not reveal, as therein lies the whole of the invention, but what I may say is that this process is extremely simple, very easily executed, and very expeditions. After one hour's work the enlarged portrait from a very defective positive can be made as perfect as if an artist had spent several days in retouching it. It is unnecessary to state that this method of retouching can be applied with equal success to all negatives, enlarged or not.

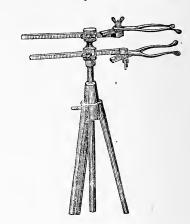
Apropos of enlargements I would mention here a very ingenious heliostat which was presented to the Photographic Society at the meeting of May 6th. The reflecting mirror is furnished with a support which allows the necessary inclination to be given to the glass with respect to the different heights which the sun takes during the year. This inclination once given to the mechanism (whose system of wheels is so arranged that the motion decreases from morning to noon, and increases from noon to night), communicates to the glass the inclined and circular movement which causes it to follow with perfect regularity the apparent motion of the sun, and to maintain the luminous rays in an invariable direction. In this manner the enlarged prints should be much sharper. This instrument is also made without the clockwork movement; in this case, after having inclined the glass according to the height of the sun, it is only necessary to give with the hand a rotary motion. The inventor of this ingenious apparatus is Mr. Derogy, one of our most skilful opticians.

A FEW USEFUL HINTS.

BY R. BENECKE.

I SEND you a few items, which you may publish for the benefit of the fraternity. The first, and I think a very important improvement, is, as you will see from the inclosed photograph, an attachment to Mr. Cramer's Bismarck Head-rest. Whenever a plate is spoiled by moving of the sitter, I

have noticed, it is in nine cases out of ten where an ordinary head-rest is used, that



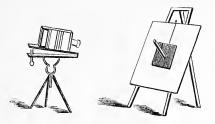
the motion was up and down, caused by the expansion and collapse of the chest during the sitting. This rest is very easily adjusted, and has proved to me to be of so much service in portraiture, that I am convinced that all my photographic brethren will like it. I think the agent for Cramer's rest would be willing to put this addition to that already very excellent head-rest. The extra expense would not amount, I think, to more than fifty or seventy-five cents. Another little dodge I have introduced into my practice. The object is to see at one glance whether a plan, map, &c, to be copied, stands parallel with the instrument. It is nothing but a straight board about six or eight inches square, in the centre of which a round stick is fastened perpendicularly. Thus: Let the board be

of a dark color, and the stick white. Now hold it or hang it by a string in front of the drawing; let the stick be there where the two diagon-



als would cross each other. Next point your camera at it. Now if you see in the centre of your ground-glass a white circular spot on dark ground, your drawing-board and camera stand correct; if not, that is if you see the picture of this contrivance too high or too low, lower or raise your instrument, and shift it until you see no more of the stick but a white spot on black ground.

The following sketch will explain it at once.



Here is another item. It is very desirable often to ascertain the exact amount of nitrate of silver contained in a solution that holds other salts, nitrate of ammonia, for instance, and where consequently an actinohydrometer cannot be used. The plan I have adopted is this: Take, say one-half ounce of the solution to be tested, add muriatic acid until all chloride of silver is precipitated, an excess won't hurt; take two pieces of filtering-paper, both of the same size and kind, put them in a funnel and pour the chloride, &c., on it; pour also three or four times water on it to wash out the nitrates. Now, after it has ceased dripping, spread the filters on an old dagnerreotype plate, ferrotype plate, or piece of glass; put it in a hot place, and soon you will have the dry chloride of silver on your filter. Next pull your two filters apart; put the one that has the chloride on one side of the scales, and the other empty filter on the other. Now weigh the chloride. By aid of the following table you can calculate at once how many grains of nitrate of silver there were in the solution.

l g	rain (Chloride o	fSilve	r = 1.18 N	itrate	f Silver
2		, 6 6	6.6	= 2.37	6 6	**
3	"	6 6	6.6	= 3.55	6 6	"
4	"			=4.74	4 4	4.4
5	"	44	4.4	= 5.92	6.6	4 6
6	4.4	6.6	4.6	=7.11	66	
7	64	4.6	44	=8.29	" "	
8	4.6	4.4	"	= 9.48	6.6	"
9	"	"	**	=10.66	6.6	"
10	6.6	+4	6.6	=11.85	6.6	44

To illustrate this mode by an example, we will suppose we found the chloride contained in one-half ounce of the solution to weigh eighteen grains, or double that amount, thirty-six grains, in one ounce.

30 grs. Chloride of Silver = 35.55 Nitrate of Silver 6 " = 7.11 " "

42.66 the amount of nitrate of silver in one ounce of the tested solution

Doctors seem to agree now that, in order to get the greatest brilliancy and permanency in silver-prints, a short but thorough washing is the plan to be followed. I have some prints now, made in 1858, which show no signs of fading yet, and were washed with very little water. They were washed by causing the water to fall on them from a height of ten to twelve feet. I placed them on a board, and by means of a long pole nailed to it which I lowered from my window, I caught the stream of water on them. The paper would become quite translucent, as if it had been oiled, but would be all right again on drying. With one bucket of water I used to wash three whole size prints. This was a rather tedious way, but some plan could easily be devised by which the same process could be applied on a large scale

A few more dodges I will reserve for my next letter, if you will take the trouble to present them to your readers in a readable shape.

OUR PRIZE PICTURE.

WE take pleasure in calling attention to our illustration this month, it being the winning picture in the recent competition for a gold medal we offered for the best three cabinet negatives.

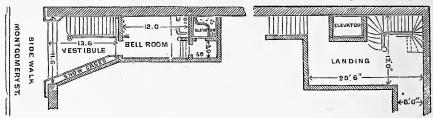
Our object in offering the medal was twofold: first, to induce photographers to make the effort to do their very best, thereby improving and elevating themselves to a higher standard of excellence, and developing abilities and resources that they were not before aware of possessing.

Secondly, we hoped to secure a better class of work for our illustrations; something that would be representative of the progress of our art, and fit examples for study and imitation by all who are striving to improve.

We are happy to say our wishes were fully realized; our confidence in the readiness and ability of many of our leading artists to respond to such a call, has been fully sustained, and we place before our readers the first example of the series we expect to draw from, for a few months.

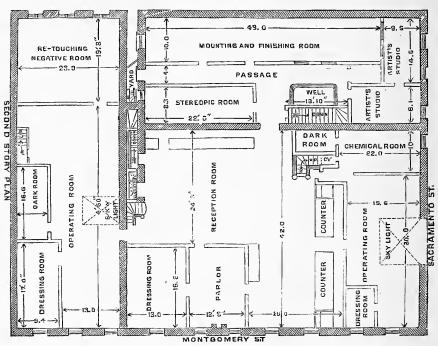
There were several of the prize set that possessed merits so nearly equal that the judges found it a nice point to decide which should be placed before all others. But when the negatives came to be examined in

among the purest specimens of photography it has ever been our good fortune to inspect. All there is in the print was produced in the negative. The retouching is so slight that it can scarcely be detected, and the beautiful gradations of light and shade are perfectly natural and spontaneous. For chemical effects, lighting, posing, and gene-



all their details, and to show the care and skill that had been brought to bear in their production, the judges were unanimous in their opinion, awarding the medal to Messrs. Bradley & Rulofson, of San Francisco. They sent us six negatives of the

ral artistic treatment, we commend the picture to the study of all who feel that they are not yet as high up in the scale of excellence as they wish to be, and trust they may be benefited. We give below letters from Mr. Rulofson and his operator, Mr. Taylor,



same subject, all equally perfect, being absolutely without spot or blemish.* They are

with plans of their gallery, and a cut, from a photograph, of their operating-room. The latter, from the 8 x 10 print sent us, has a very inviting appearance, seems large, and well supplied with all appliances neces-

^{*} Prints from the six may be had of the publishers of this magazine, for \$1. See advertisement of prize prints.

sary for first-class work. We think it well worth imitating by any who are reconstructing or building, and wish a studio well appointed and perfectly adapted to the business.

The modesty of our friends in speaking of themselves is as refreshing as their work is excellent. Their apparent unconsciousness of having produced anything superior, brings forcibly to mind the following paragraph from a new work entitled Art Culture: a Handbook of Art Technicalities and Criticisms, by John Ruskin. Under "Art Laws," he says:

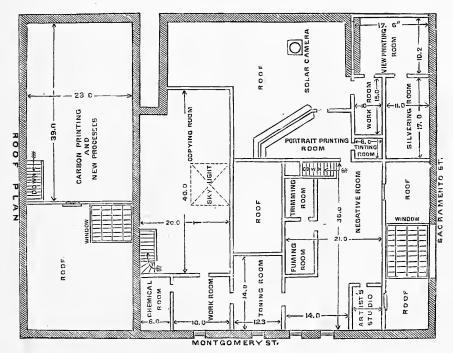
"While in painting, much knowledge of what is technical and practical is necessary to a right judgment, and while every great composition is in perfect harmony with all true rules, and involves thousands too delicate for eye, ear, or thought to trace; while reason wisely over the way a bee builds its comb, and be profited by finding out certain things about the angles of it. But the bee knows nothing about the matter. It builds its comb in a far more inevitable way. And from a bee to Paul Veronese, all masterworkers work with this awful, this inspired unconsciousness."

The following are the letters referred to, and we are glad to see the operator recognized, and allowed credit for his part in the work.

"SAN FRANCISCO, May 13th, 1874.

"FRIEND WILSON:

"I herewith forward to you a note from Mr. Taylor, giving our formulæ for working, and containing some of his views on the subject, but I must confess I would not have you understand that I indorse all he



it is possible to reason, with infinite pleasure and profit, about these principles, when the thing is once done, yet all our reasoning will not enable any one to do another thing like it, because all reasoning falls infinitely short of a divine instinct. Thus we may

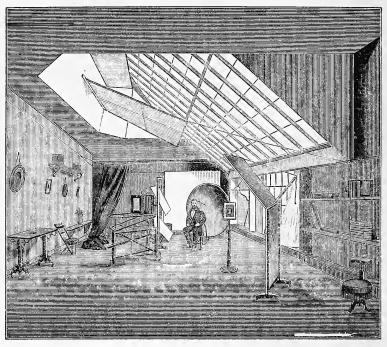
says on the subject, of the relative quality of San Francisco work, nor the causes to which he ascribes the assumed superiority, while I would be slow to d-tract from the industry, perseverance, and skill of our photographer. I think it but fair to admit

that they possess some climatic advantages not enjoyed elsewhere in America. I don't regard the light as superior in actinic power to that of the Atlantic States; but we do possess a more even temperature, the thermometer seldom rising above 75° or falling below 60°, with a slightly humid atmosphere, presenting the most favorable conditions for delicate chemical processes involving the use of volatile substances. And a Californian's proverbial modesty causes us to

and expert, valuable aids in the mounting and finishing department.

"We made several attempts to obtain an interior negative of our reception-room, of which we are proud, but failed, owing to the long exposure required, and the throng constantly interrupting.

"And now it only remains for me to say, that I regret not being able to present some more interesting material for your consideration. William H. Rulofson"



cast about for some natural cause to which to attribute any superiority, which our friends may kindly ascribe to our productions.

"I send herewith a plan of our gallery, from the street entrance to elevator, to the roof; there are in all twenty-nine rooms, reasonably well adapted to their several uses. You will observe that we formerly occupied the corner building only; we then cut through into the adjoining building on Sacramento Street, and later, effected an entrance into the one on Montgomery Street. We are now giving employment to thirty-four hands all told. We employ six Chinese; they are faithful, industrious,

"San Francisco, May 4th, 1874.

"EDWARD L. WILSON.

"DEAR SIR: In obedience to your request, I give you my formula by which the prize negatives were made. It is an old and long-used formula, but I think there is no better when carefully used.

COLLODION.

Ether and A!cohol, . . equal parts.

Cotton, . . . 6 grains to ounce.

Iodide of Ammonium, . 4½ grains.

Bromide of Potassium, . 2 grains.

"Silver bath-40 grains, slightly acid.

DEVELOPER.

Water,			96	ounces
Iron,			6	6.4
Acetic A	Acid,		10	4.4
Alcohol			6	1.4

"The above is the formula I have worked for the last four years, all the time I have been with Bradley & Rulofson, and our negatives, in quality, improve from year to year-not by trying every newfangled notion that comes along, but by giving our closest attention to the details of the process. I have worked in photography for the last sixteen years in the Eastern and Western States, and have met more thoroughbred photographers in San Francisco than I ever saw in my life before. This city has the reputation of making some of the finest photographs in the Union, and I might say the world, and it is all due to the careful, hard workers in photography. The climate has nothing to do with it. Work, work does it; work is the word with us.

"D. B. TAYLOR,

"Operator with B. & R."

The prints were made by Mr. William H. Rhoads, on the Albion Albumenizing Co.'s paper; sold by Messrs. Wilson, Hood & Co., and were enamelled by Mr. W. G. Entrekin, by his now well-known and much-used enameller. They speak well for the printer, for the negative-maker, and enameller.

MATTERS OF THE



Membership costs \$2; annual dues, \$4. Life membership, \$25, and no dues. The fees for life membership will probably be doubled at the Chicago Convention.

All remittances of back dues, and fees and dues for new members, should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Pay your dues before you go to Chicago, to save hurry and bustle there, and as an accommodation to the Treasurer.

Life Members.—Mr. W. R. Phipps, Lex-

ington, Kentucky, and Mrs. E. M. Withington, Ione City, Cal., have been elected life members.

The Regulations for Exhibitors will be found in the circular, together with the railroad and hotel arrangements, &c., which was issued a few days ago. If you have failed to receive a copy apply to us and we will send you one.

The Finance Committee of Chicago, in the interest of the N. P. A., takes pleasure in sending greeting to the photographers of the United States through your valuable Journal, that there is united action and effort on the part of all the photographers and stockdealers of Chicago to make this annual meeting the greatest ever held, not only putting forth every exertion in their power in hard work, but they came down with their cash.

Chas. W. Stevens headed the list with a cash subscription of three hundred dollars; that is the banner subscription, and he is pushing with all his energy with the rest of us, to make it a success.

Mr. D. H. Cross, our operator, will read a paper called "Hints and Suggestions."

Yours, very respectfully,

C. D. MOSHER.

Take Notice.—A meeting of the Executive Committee of the N. P. A. will be held at the Palmer House, Chicago, Monday, July 13th, at 3 P.M.

W. IRVING ADAMS,

EDWARD L. WILSON, Chairman. Secretary.

ARTISTIC PHOTOGRAPHY.

WHY SHOULD WE NOT EXCEL?

BY C. D. MOSHER.

SCIENCE AND ART in photography have attained to that high appreciation of real merit and truthfulness of the likeness that places photography to-day as one of the fine arts, which has been brought about by years of hard study. The old style of photograph had no real art merit in it. The photographer just plumped his patron down in his chair in a full blaze of light, many times as stiff and ungainly as the marble statuary before the artist hand had given it life, and so it was with photography. Science and

art have perfected it, more complete, more truthful than any artist hand can draw by art rules in painting and drawing.

The artistic photographer has light and shade, roundness, the true symmetry of artistic proportions, grace, ease, and natural pose, and lifelike expression that is not excelled.

To-day the artistic photographer can give his patrons likenesses from life, and the beautiful landscape in every form, true to nature, almost perfection itself, with not as much as one hair added to or taken from.

HINTS UNDER THE SKYLIGHT.

BY R. J. CHUTE.

LIGHTING.

The construction and situation of the light is of such importance that it should be the *first* consideration in erecting or refitting a gallery. It is the basis of all success or failure, and those not thoroughly versed in this direction will do well to look to it for the cause of some of the shortcomings they experience and which they are endeavoring, in vain, to overcome. I would advise no one to be influenced by this or that theorist, as to the arrangement of a light, but rather investigate the causes that have given the greatest success in the photographic art.

H. P. Robinson says: "Some men succeed in spite of difficulties;" this we all know to be true, and also that hundreds fail on account of difficulties. Now, in erecting a gallery, the better the light can be adapted to the work the less difficulties there will be to overcome, and the more uniformly successful will be the work done under it.

I do not propose, at this time, to give any directions or specifications in reference to the construction of a skylight, but simply to suggest the *importance* of this department of the studio, and to express my belief that the greatest fault that is general in photographic skylights is expressed in two short words, viz., too high. I know of no one who has ever achieved great success under a high light unless it was correspondingly large; while it will be found that those who have won both fame and fortune

have done it under comparatively low lights. Burnett, in his "Practical Hints on Light and Shade in Painting," in reference to "the means by which the painter works," says: "That there is an art in the management and disposition of those means will be easily granted, and it is equally certain, that this art is to be acquired by a careful examination of the works of those who have excelled in it." That the above is as applicable to photography as to painting all will readily admit. The means by which we work, and our success in their management and disposition, determine the quality of art culture there is in us. And as light and shade, exclusively, give all the varied effects we strive for, it is of the utmost importance that we should find, if possible, the best means for using these agents of our will, that assume form and place at our bidding, giving the semblance of something tangible in all the beautiful gradations which we see in the best works produced by our art.

To do this we have not only to study the works of those who have excelled, but as far as possible the means by which they achieved success.

The use of a top and side light combined has generally been recommended, and probably nine-tenths of the lights in use are so constructed. The side-light is useful and sometimes necessary, but is subject to such abuse that its general utility may be questioned. A low top-light produces every effect desired in ordinary portraiture, and even those not skilled in the art of lighting cannot then easily go astray.

There is a disposition among many to use too much side-light. The effect is very bad in most cases. The beauty of the eyes is seriously impaired by the reflected sidelight; the natural shadows of the face are destroyed, and the features either appear distorted, or are weak and insipid. That important feature, the mouth, around which plays so much of sentiment, life, and beauty, loses nearly all its charms under this treatment. The delicate shadows that delineate the exquisite curves and lines of character and expression are quite destroyed; the upper lip is lighted almost equally with the lower, the shadow under the latter is want-

ing, and if the light on the face is softened to any extent, the whole becomes as near a blank as anything can possibly be and still have form.

Now, the best workers of to-day use sidelight very sparingly, and those who have not the fullest confidence in their abilities or knowledge, or have failed to satisfy themselves in their own work, should study the difference between their own and the work of some of those who have succeeded best, and ascertain if possible wherein the difference lies.

When full figures were in demand, a fair proportion of side-light was rather necessary, in order that the subject should be properly lighted, but then the effect was considered in reference to the whole form, the face of course being the most prominent, but still subject in a great degree to other and less important parts. But in these days when the face is the picture, and the most exquisite modelling is required to give it truthfulness and beauty, success depends either upon the most consummate skill, or very favorable conditions.

OUTDOOR WORK ON THE PACIFIC COAST.

BY J. J. REILLY.

WITHIN the past few months I have had several inquiries from brother photographers as to what instruments and chemicals I use in my outdoor work; if I made my own collodion, and if so, how iodized, &c. Now it may be of some benefit to the fraternity to know; if so, I am perfectly willing they should, so as to enable them to make all the improvement they can in outdoor photography. Our art is beautiful, but the trouble is, the men who spend both time and money in the way of trying to make fine work are poorly paid for it. I read that this thing was discussed in the convention last July in Buffalo. Fine work is not appreciated by the public in stereoscopic views. The man who can furnish the cheapest sells most without regard to quality, and there is where the wrong comes in. I used to get \$24 per gross for

stereoscopic views some eight years ago at Niagara, and two years ago \$24 per gross for views of the Yosemite Valley, and today can get barely half that. It is not because my views are poorer, for they are at least fifty per cent. better, but the men who handle them say, "I can buy views from Mr. A. at \$12 per gross, and why do you ask more?" Why? because my views are better. "Yes, but the public don't see any difference;" and so the poorest will sell fastest because he can sell them cheapest. Now if I cannot afford, or will not sell my views as cheap as Mr. A., I cannot sell any, and consequently must starve. This I cannot afford to do, so I say to myself, "Well, there is no use in being so particular to have every print just right, and printed and toned just so; I will let them go; the public will never see the difference." And so the man who spends both time and money in getting up nice work, cannot get paid more than half for his labor. This is discouraging, to say the least.

Since I left Niagara, I have been over a great portion of this coast; in the Yosemite Valley especially, for the past four summers. I have also made a few trips outside of the valley, crossing the summits of the wild Sierra Nevada Mountains, and also running some risk of being scalped by the Indians; also ascending the tops of the highest mountains, ten thousand feet above the sea, where lay in places from five to ten feet of snow in the month of August, and no water to be found short of one or two miles to wash negatives with. This difficulty was overcome by building a brush fire and heating stone in it; then filling a a bucket full of snow and placing the hot stone therein; in a few minutes we had plenty of soft water, and by cutting a top off one of my socks, and tying it around the faucet, I was enabled to get clean water, and so do clean work, and on that trip of four weeks I made some fine cloud effects. But I can get no more for this class of work, from these hard-earned negatives, than if they had cost me nothing, and the pictures were of the poorest kind.

My way of working is as follows:

I am using a pair of $3\frac{1}{2}$ inch focus tubes, known as the imitation Dallmeyer's; also a

pair of genuine Dallmeyer's wide angle $2\frac{1}{2}$ inch focus. With these two pairs I do all my work.

My collodion is as follows:

No 1.

Plain Collodion, . . . 1 ounce.
Iodide of Cadmium, . . 4 grains.
Bromide of Cadmium, . . 4 "

No. 2.

Plain Collodion, . 1 ounce.

Iodide of Cadmium. . 7 grains.

Bromide of Cadmium, . 3

These two can be so mixed as to save the most delicate clouds. If No. 1 works too thin, mix with it a little of No. 2 for cloud effects; if not for clouds, mix in equal proportions.

No. 3.

Plain Collodion, . . . 1 ounce.
Iodide of Ammonium, . . 6 grains.
Brouide of Ammonium, . . 3 "

This will much benefit your collodion by mixing one-third of No. 3, that is, if no clouds are to be taken. In making my collodion, I use equal parts of ether and alcohol, but I dissolve my iodides and bromides in the alcohol first, and I use from $3\frac{1}{2}$ to 4 grains of gun-cotton to the ounce.

DEVELOPER.

Double Sulphate of Iron

and Ammonia, . . 1 ounce.
Water, . . . 20 ounces.
Acetic Acid, . . . 2 ''
No Alcohol.

REDEVELOPER.

No. 2.

Nitrate of Silver, . . 20 grains. Water, . . . 1 ounce.

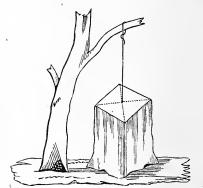
Twenty drops of No. 2 in one-half cunce of the pyro, poured over the negative after fixing and well washing, will bring it up to the required intensity. This solution may be poured off and on the plate till enough intensity is obtained, but must not be used a second time. But the bottle must be washed clean before developing a second plate. After fixing the negative, and then rede-

veloping, it don't dry any more intense. Always keep a weak solution of sulphuret of potash on hand, so that should the pyro stain or turn your negative a scarlet color, by flowing the plate with the sulphuret once or twice, this color will leave. Wash well, and set up to dry; then it is ready for varnishing.

A CONVENIENT DARK-TENT.

BY T. C. HARRIS.

I GIVE below a description of a "dark-tent" for outdoor work, which is the best thing of the kind I ever saw. It may not be new to many of your readers, but is too good a thing to be lost; neither is the idea an original one with myself. It is simply this: Make a large bag (say three feet square) of three or four thicknesses of orange calico, and for a bottom sew in a piece 3 x 3 feet, same thickness. In the centre of this make a small hole, and work the edges like a button-hole. Now get a small rope about twelve feet long, and pass one end through the hole, and tie a knot in it, and the tent is complete; weight from three to four



pounds. To use: Pick up two rough sticks about four feet long and as large as the finger, tie them together in the middle with the inside end of the cord, to support the top when hung up. The other end of the cord is fastened to a branch or body of a tree, fence-corner, or anything else. The sticks are then turned across each other, so as to hold out the top and sides in the shape of a box. It should be about four feet deep and three feet square or larger, hung up so that about a foot of the lower edge will lay

on the ground. The bath, chemicals, &c., are placed inside, on the ground, against the back-wall, and the front-side is lifted to get under. In moving from place to place, the tent can be rolled up in a small, compact bundle, and tied with the rope. I find that four thick orange calico to be ample, will admit plenty of light to work by, but not fog the plates. A little window of orange glass, 4 x 4 inches, can be added, but is unnecessary. One of these tents can be made by any one, and is really worth a dozen of the unwieldy things sold by stock-dealers.

THE TRANSIT OF VENUS.

This event, which occurs on the 8th and 9th of December next, will be the most important in photography of any during the year, and the most important to science of any that has occurred during the present generation. Our government has made ample provision for observing this phenomenon, and will send out no less than eight different parties, to as many separate stations in various parts of the world.

Mr. L. E. Walker, photographer at the Treasury Department, at Washington, has kindly furnished us with a list of the several parties, and the stations to which they are assigned, which we give below. We notice in this list that all of the chief photographers, and several of the first assistants, are subscribers to the Philadelphia Photographer. We are glad to see this, and commend it especially to the consideration of all young men in the business. The man who reads and studies carefully everything connected with his profession, soon commands attention by his knowledge and intelligence, and is sure ere long to take a high position among his fellows.

We notice also among the names, severalwho have had experience in this class of work, having been on the eclipse expedition to Iowa, in 1869.

Many of them go to remote stations, where for a time they will be quite isolated from the rest of the world, and widely separated from all their social and domestic relations, but we wish them all success in their enterprise, and a safe return to their homes. They go on a useful mission.

UNITED STATES PARTIES TO OBSERVE THE TRANSIT OF VENUS, DECEMBER 8 AND 9, 1874.

Władiwostok, Siberia.

Prof. Asaph Hall, U.S.N., Chief Astronomer.

Mr. O. B. Wheeler, Asst. Astronomer.

Mr. D. R. Clark, Chief Photographer,

Mr. T. S. Tappan, 1st Asst. Photographer.

Mr. G. J. Rockwell, 2d Asst. Photographer.

Mr. F. M. Lacey, 2d Asst. Photographer.

Will start for San Francisco about the 25th of July, and will meet the U. S. Steamer Lackawana, on August 15th, at Yokohama.

Nagasaki, Japan.

Prof. Geo. Davidson, U. S. Coast Survey, Chief Astronomer.

Mr. O. H. Tittmann, Asst. Astronomer.

Mr. S R. Seibert, Chief Photographer.

Mr. II. Ellerton Lodge, 1st Asst. Photographer.

Mr. F. H. Williams, 2d Asst. Photographer.

Will sail from San Francisco, either the 15th August or 1st September.

Pekin, China.

Prof. James C. Watson, Chief Astronomer. Prof. C A. Young, Asst. Astronomer. Mr. W. V. Ranger, Chief Photographer. Dr. E. Watson, 1st Asst. Photographer. Mr. Benj. J. Conrad, 2d Asst. Photographer.

Same as the Siberian party.

The Southern parties left Sandy Hook, Sunday, the 6th of June, direct for the Cape of Good Hope.

Hobart Town, Tasmania.

Prof. Wm. Harkness, U.S.N., Chief Astronomer. Mr. Leonard Waldo, Asst. Astronomer. Mr. John Moran, Chief Photographer. Mr. Willard H. Churchill, 1st Asst. Photographer.

Mr. Walter B. Devereux, 2d Asst Photographer.

Crozet Island.

Capt. Charles W. Raymond, U S.A., Chief Astronomer.

1st Lt. S. E. Tillman, U.S.A., Asst. Astronomer.
Mr. Wm. R. Pywell, Chief Photographer.
J. G. Campbell, 1st Asst. Photographer.
Theodore Richey, 2d Asst. Photographer.

New Zealand, Bluff Harbor.

Prof. C. H. F. Peters, Chief Astronomer. 1st Lt. E. W. Bass, U.S.A., Asst. Astronomer. Mr. C. L. Phillippi, Chief Photographer.

Mr. Israel Russell, 1st Asst. Photographer.

Mr. E. B. Pierson, 1st Asst. Photographer.

Mr. L. H. Aymé, 2d Asst. Photographer.

Kerguelen Land.

Lt.-Com. Geo. P. Ryan, U.S.N., Chief.

Lt.-Com. C. J. Train, U.S.N., Asst. Astronomer.

Mr. D. R. Holmes, Chief Photographer.

Mr. G. W. Dryer, 1st Asst. Photographer.

Mr. Irvin Stanley, 2d Asst. Photographer.

Chatham Island.

Mr. Edwin Smith, U. S. Coast Survey, Chief.

Mr. Albert H. Scott, U. S. Coast Survey, Asst. Astronomer.

Mr. Louis Seebohm, Chief Photographer.

Mr. Otto Buehler, 1st Asst. Photographer.

Mr. W. H. Rau, 2d Asst. Photographer.

We have also received from Washington quite an elaborate pamphlet of instructions, prepared by the Commission on the Transit of Venus, and issued under the order of the Secretary of the Navy, for the use of the observing parties. It contains all the information in detail necessary, for the guidance of those engaged in the work. It is interesting to us all, as showing the discipline and systematic arrangement of everything connected with the enterprise. If we can find room next month we shall make some extracts that we think may be valuable to our readers.

Class in Landscape Photography.

It will usually be found that some difference in formulæ and methods of working is required between gallery and field work, as the conditions, such as subject, light, &c., vary much more out of doors than in. But as a general rule, chemicals that produce good work in the gallery will do so in the field, with such slight modifications as a little thicker collodion, and a weaker developer, for subjects well illuminated.

As we always feel a confidence in the suggestions or formulæ of those who are proficient in their calling, we propose to quote from some of the men who have been very successful in this department. Mr. G. W. Wilson, the celebrated landscape photographer of Aberdeen, Scotland, says: "My success is due to care, and I have used the following formulæ for ten years:

"Bath -Ordinary 30-grain bath of ni-

trate of silver, without anything added to it, except about 4 grains of iodide of potassium to every 16 ounces.

"Collodion.—As I never could make it to please myself, I always buy it from some respectable maker.*

DEVELOPER.

Glacial Acetic Acid, . . 1 ounce.

Water, 16 ounces.

Protosulphate of Iron, . 15 to 30 grains,
to the ounce of solution.

"In warm weather I dilute the developer immediately before using it, consequently can carry in one bottle as much as when diluted would make two."

Linn's "Lookout Landscape Photography" gives the following:

SILVER BATH FOR NEGATIVES.

Crystallized Nitrate of Silver, . 40 grains.
Pure Water, 1 ounce.
Carbonate of Silver Solution, . 5 drops.

"If for copying or large view negatives, especially with the Globe lens, use of

Fused Nitrate of Silver. . . 1 ounce. Crystallized Nitrate of Silver, . 1 ounce. Nitric acid to neutralize if alkaline.

"The first formula is for stereoscopic views or portraiture. We have the power with these agents of producing every gradation of strength, from brilliant softness to harsh intensity.

"The power of modifying with fused silver, and the resources of the negative bath are generally overlooked by photographers, who, as a rule, seek in the collodion for desired chemical effects. This is good as far as it goes, but let a good silverbath be the basis of all your experiments."

To fuse nitrate of silver, "raise the heat, and continue the evaporation until it ceases foaming, and the residue has the appearance of melted wax. When cool, dissolve in a small quantity of water, bottle, and keep in stock. Use for imparting vigor to a negative bath.

"To prepare carbonate of silver, take of

^{*} To those similarly situated we would recommend Hance's White Mountain and Niagara Falls Collodions. They are both made after formulæ, by men whose work cannot be excelled, viz., Messrs. Kilburn of Littleton, N. H., and Curtis of Niagara Falls.

silver solution any quantity, carbonate of potash in saturated solution, add until all or nearly all of the silver is precipitated. Be careful not to get in too much potash, as it will redissolve a portion of the carbonate of silver, and cause it to precipitate too slowly. Make it up in a large bottle, so as to wash more expeditiously. Fill up with good soft water. Let it settle and pour off carefully. Repeat this washing, say ten times, or until the last trace of potash is washed out Put the residue, which is carbonate of silver, in a small bottle, and keep a little water on it, and set away in the dark. Always keep a stock of this on hand. It is the only proper substance to neutralize a negative bath. An old worn-out solution will answer to precipitate in this way, and you can hardly make a better use of it. It can be added in any portion to the bath, or it may be composed of it by neutralizing with nitric acid, and reducing with water to the proper standard, 40 grains. Do not use a printing bath in preparing the carbonate."

The formula, given by Prof. Linn, for collodion, is no doubt very good. We know that plain collodion made up and allowed to stand and ripen thoroughly, possesses very superior qualities. To those who make their own collodion, and are always looking for something better, we commend his formulæ.

PLAIN COLLODION.

Negative	Cott	on,			1	ounce.
Ether,					40	4 4
Alcohol,					40	
Bromide	of C	admir	ım		40	orains.

"Mix the ether and alcohol, then add the cotton in small tufts, shake well, and after standing a day or two, filter, and keep in a dark cool place. It will work at once, but is much better to stand some time. For fine stereoscopic negatives a thoroughly ripened collodion is essential. Have a good quantity laid away for months ahead. The bromide of cadmium will facilitate the ripening.

EVER-READY IODIZER.

Alcohol (Atwood's paten	t),	16 ounces.
Iodide of Cadmium,		l ounce.
Iodide of Ammonium,		2 ounces.
Bromide of Ammonium,		1 drachm.
Bromide of Potassium,		1 "
Bromide of Cadmium,		2 "

"Pulverize the flinty salts (bromide of potassium), add this and the other bromides to the alcohol first; let it stand a few hours, and then add the iodides. When settled it is ready for use, and keeps any length of time without changing. To sensitize take iodizer, 1 ounce; plain collodion, 10 ounces."

Mr. John L. Gihon, who has sent us some beautiful specimens of his work, both in portrait and landscape photography, from Montevideo, S A., says: "The thin delicate negatives that every advanced operator prides himself upon producing in atelier work, are most unsuitable for landscape purposes, and he who takes the field provided with the materials that he has used for portraiture, will soon find that modifications are necessary. Collodion, bath, and developer, each and all, have to be altered. With collodion, I have always maintained that excessive nicety in choice and proportions of sensitizing salts is not of the first importance. The quantity and character of the cotton that is added to the ether and alcohol, and the relative proportions of each of the latter, have always presented themselves to me as matters worthy of more attention. I advance it as a rule that nicer distinctions in the printing capacities of a negative can be made by judicious selections of gun-cotton, than by the same amount of experiment with different iodides and bromides."

He recommends using about double the quantity of cotton for landscape work that is used for portraiture; and to use a bath 45 grains strong. In reference to developer he refers to a formula published by us some years ago, and says: "Late constant use leads me to recommend it in the strongest terms.

Protosulphate of Iron,		3 ounces.
Sulphate of Copper,		1 "
Water,		80 ''
Glacial Acetic Acid,		3 "
Alcohol,		3 "
Ammonia,		100 drops.

"This developer improves with some little age, and can be used with the utmost safety in relation to any fogging propensities. Its action upon a well-timed plate is all that can possibly be desired."

HOW TO AVOID UNNECESSARY WASTE OF SILVER.

THE developings and first washings of the negative are rich in silver, most of which can be saved by using proper means and care. The plan recommended in Anderson's Skylight and Darkroom is about the best, but some simpler method will answer very well. Any large vessel into which you can run the developings and first washings, where they can remain undisturbed long enough to settle, will answer the purpose. The iron in the developer is sufficient to precipitate all the silver held in solution, but it settles slowly. the vessel is full let it stand a day or two, and then decant what you can; filter the remaining liquid through a cloth or paper Another, and perhaps the least troublesome plan, is to make a long conicalshaped bag of cotton cloth or some similar material, which can be suspended in a barrel by tacking the open or large end of the bag around the upper end of the barrel, allowing the small end of the bag to reach nearly or quite to the bottom of the barrel (of course the barrel is supposed to stand on one end, and the upper head is removed). The wastepipe should be inserted well up toward the top of the barrel; now let your developings and first plate washings run into the bag, which will act as a filter, and save all the silver, and when you have obtained sufficient precipitate to make it pay, you can reconvert it to a workable condition by simply submitting the precipitate to the action of muriatic acid, which will dissolve out the ferro-sulphate and leave a residuum which is pure silver, requiring only to be thoroughly washed and then dissolved in diluted nitric acid; the acid may be driven off by evaporation, or neutralized, when the silver solution becomes ready for use.

In fixing the negative some operators prefer to use cyanide of potassium, but hyposulphite of soda is most generally used; in either case a shallow dish or tray large enough to lay a number of negatives in, face up, with solution enough to well cover the same, is the most convenient and economical. By fixing in this manner the solution becomes rich in silver, all of which can be recovered by the galvanic process,

but if you do not like to fuss with a battery, and are in no hurry, you can immerse a piece of copper, or a copper plate in the hypo or cyanide solution, three or four inches square, and let it remain; the pure metallic silver will be deposited upon the surface of the plate, and when desirable to do so you can scale off the silver, and reduce it with nitric acid, evaporate, or neutralize, and the silver solution is ready for use.

Of course I am aware that there are several other ways of recovering silver from the solutions above mentioned, but the plan here recommended is the most easily managed by the majority of operators. The chlorides, carbonates, &c., are also easily managed, but the sulphurets, &c., require brains, and other conveniences, which I do not propose to furnish. A great deal of silver might be retained in a workable condition by using a little forethought. For instance, suppose you obtain a large open-mouth bottle, or other suitable vessel, and place it in some convenient spot. Now, when you rinse out your negative bath-holder, pour the first rinsings into the bottle, and when you are done with a filter just drop it, while wet, into the same bottle; do the same with blotting-papers, sponges, and in fact everything which becomes saturated with the negative solution. By constant additions the contents of the bottle gains volume and strength, and an occasional stirring will reduce the whole to a pulpy mass, which should be strained, and squeezed as dry as possible, and then the weak solution thus obtained can be strengthened with new silver, or by boiling down, and is ready for use cither to renew an old or make a new

By making the contents of the slop-bottle tolerably strong of nitric acid the silver contained in old dry filters, elippings, &c., can be reduced and utilized.

The advantage of some simple plan of avoiding waste must be obvious to any one, who will stop to think of the foolishness of "going around Robin Hood's barn" to save a mere fraction of the silver which he has made into a conglomeration which could be avoided with less trouble.

GERMAN CORRESPONDENCE.

About Negative Varnish—Albumen Paper Manufactories—Yellow Spots on Albumen Paper—Reproducing Negatives—About Enamelled Burnt-in Pictures—New Application of the Dust Process—Restoring and Copying Daguerreotypes.

It may appear as labor lost to write something new about negative varnish, particularly when writing to America, where good varnishes are by no means scarce, and where even inferior kinds, on account of the dry climate, do good service. It is different in the damp climate of Europe, and year in and year out, we hear complaints about the cracking of the film. "Such things do not happen with us," said an American friend to me. Happy America!

But there are certain shortcomings in varnishing which occur also in America, and of these I will speak now. It has likely happened to every photographer, that the picture on being varnished, became dissolved; it was eaten away as soon as the varnish was poured upon it, and floated partially or entirely away with it. I observed this phenomenon ten years ago, and found that an addition of water to the varnish will cure the evil. One cubic centimetre of water to one hundred cubic centimetres of varnish suffices. When water is added to the varnish, a precipitate is formed which is removed by warming the varnish. This fact has led to the supposition that too strong alcohol is the cause of the dissolving of the film, for it is well known that some samples of pyroxylin will dissolve in warm alcohol, and this is the reason why the same varnish will not dissolve every film, but only with certain collodions. Ungar, in Vienna, has lately demonstrated, that not only the alcohol, but also a certain percentage of turpentine in the varnish, causes this eating away of the film. Ungar found that a solution of 20 parts of turpentine in 100 parts of water, possessed strong dissolving power for collodion films, so much so, that the film will always be dissolved when these conditions are present, and particularly when the plate has been warmed.

I remember a communication of our friend Simpson, which he wrote ten years

ago, to the effect that oil of turpentine may be used for dissolving cotton; at all events, there are several substances which will dissolve cotton, which heretofore have been but little tried, for instance, acctone, nitrobenzole, &c.

Ungar's communication points to the fact that turpentine in the varnish exercises an injurious influence; on the other hand, turpentine is frequently added to varnish because it improves its quality in other respects. Ungar maintains that the ugly cracks and splits in varnish are avoided by adding turpentine. He speaks of a varnish which showed cracks one-quarter of an hour after it had been applied, and which by the addition of turpentine became fit for use. Castor oil, which is also sometimes added to varnish, is said to be not near as efficient as turpentine. Ungar gives the following formulæ:

Yellow Shellac, . . . 2 parts.

Turpentine, 1 part.

Dissolved in weak alcohol.

Also.

Plates which have been coated with the last-named varnish, may be placed for weeks in nitric acid without the film being destroyed. In order to remove this varnish warm lye has to be used. Ungar states further, that the lead-pencil retouch adheres to this varnish without any further preparation.

I add some observations on the distortion of the film, due to the action of the varnish, sometimes in the shape of expansion, at others as contractions. It seems that this depends mainly on the character of the varnish which has been employed, for a mastic varnish which I tried recently did not expand the film in the least.

In my last letter, I wrote to you that all the Dresden albumen paper manufactories had been consolidated into a single joint-stock concern. It was at the time supposed that Trapp & Munch, in Friedberg, would also join in this arrangement; this, however, is not the case. Trapp & Munch remain independent, and use as heretofore Rives

plain paper. Speaking about paper, I have to caution those of my readers who are Mr. Constant states that the smokers. small yellow spots which we sometimes notice on the finished pictures, are caused by the ash-dust from cigars. He has noticed that in the centre of this spot a small grain is always perceptible, and that a yellow color extends around it, which extends the further the larger the grain. This spot becomes visible after fixing and washing, but becomes prominent only after drying. Mr. Constant refers to the testimony of a lady photographer, who was much annoyed by these spots, until finally she forbid her workmen to smoke in the atelier, when the spots disappeared.

I myself do not smoke, and have never noticed these spots, but on the other hand, I know several photographers here who smoke constantly, and who have never noticed them.

The process of Obernetter for reproducing negatives is much talked about. I have recently seen a negative portrait of the Emperor, which had been reproduced by Obernetter in an admirable manner. It is certain that not every one is able to reproduce by this process as successfully as Obernetter, who, by years of practice, has acquired an astonishing routine, and this seems to be necessary. His process is the same as the one which is employed in making enamelled or burnt-in pictures. I have met in America many persons who have tried this process, but did not meet with any success. Obernetter has published lately some interesting facts which explain the want of success. In making a porcelain picture a film of chromate of gum is exposed to light, and dusted over with the enamel powder, the plate is afterward coated with collodion, and washed finally with diluted acid in order to remove the chromic salts. This acid is, according to Obernetter, the objectionable feature; it decomposes the pigment, which loses in consequence tone and lustre, and turns gray and ugly.

This objectionable feature is at once removed if we employ, in place of the acid, an alkali for washing the plate, for instance, a weak solution of soda or potash.

Many persons torment themselves by

making the solutions in the dark, by dusting in the dark, and coating the plate in the dark, &c. This, however, is not necessary. The solution does not suffer by light; the dry film is somewhat affected by light, but only if the action continues for some time.

Woodbury has also worked Obernetter's process, and obtained very excellent results. He states that breathing on the exposed film should be avoided, while, on the other hand, Obernetter recommends it. Woodbury recommends to let the plates rest for a short time. He says that breathing on them has always caused him trouble, particularly streaks in the direction of the stroke of the brush. Obernetter describes further an application of the dust process for the production of plates suitable for the printing press.

A copper or glass plate is coated with a thick solution of 10 grammes gelatin, 2 grammes glycerin, 4 grammes bichromate of ammonia, and 50 grammes of water; when the plate has become dry it is exposed under a negative. After exposure the plate is dusted over with fine zinc-dust, such as is found in the zinc works, until the depths are strongly infected with it. When the plate has been sufficiently dusted a part of the chromate is washed out with water, and this is continued so long as the water has a lemon-yellow color; afterwards the plate is left to dry spontaneously. The remnant of the chromate remaining in the plate is just sufficient to make the gelatin film, by long exposure to light or heating to 150 degrees, insoluble. When this has been done the plate is exposed to dilute muriatic acid, the zinc dissolves, and the resulting hydrogen reduces, in its nascent state, the insoluble gelatin into the soluble modification. The film is then washed with hot water, and we have a relief plate, in which all the parts are depressed where the zinc-dust had been before, in other words, the shadows. This relief plate can be copied by the galvanic process. Unfortunately the half tones, as well as the shadows, are depressed, and hence we have no half tones in the picture. But line drawings may be reproduced by this process in an excellent manner.

This kind of work, however, is by no means pleasant, for the zinc-dust is injurious

to health, and to inhale it cannot be avoided. If we work for half an hour at this process the consequences are metallic taste, loss of appetite, and tendency to vomiting. Partially we can protect ourselves by the use of respirators. Two or three plates a day may be made with impunity.

In conclusion, let me give you a process for restoring old daguerreotypes which have turned yellow, blue, or black. Maybe that this process is known already. I do not find a notice of it, however. The manner is simple. The daguerreotype is placed in a solution of cyanide of potassium, when sometimes it will become as bright as new. When we wish to reproduce a daguerreotype, it will be advisable to so place the same that the polishing lines are placed horizontal; generally these lines cross the face from right to left.

Yours truly,

DR. VOGEL.

SOCIETY GOSSIP.

CHICAGO PHOTOGRAPHIC ASSOCIATION.—Wednesday evening, June 3d, 1874. Thomas Severn was elected a member.

Mr. Greene read a very able paper on "Art as applied to Photography," after which a discussion followed by Messrs. Hall, Hesler, Greene, Cross, Cunningham, and others.

Mr. D H. Cross criticized the statement that there could be no fine art where there were rules. Every general principle, when applied, when worked up to, was a rule, and without principles there could be nothing done.

Mr. A. Hesler was also of opinion that in the toning, pose, and background of photographic pictures, unless there was artistic taste exercised, the public would not have the work palmed off on them. In so much there was room for the application of artistic principles to photography; further than that there was not.

Mr. A. Hall derided the idea that the work of the camera could be styled artistic After further discussion, a vote of thanks was returned to Mr. Greene for his paper, which was placed on file, without any conclusion as to whether photography was or

could be improved by the application of artistic principles, or must be run as a mechanical trade.

Mr. Hesler explained how the National Photographic Association affairs were coming on. Everything is running smoothly, and very satisfactorily. He had not the least doubt but we would have the greatest show this season that we ever had. All were responding liberally, and applications for space were coming in rapidly. art gallery, and so much of the main part of the Exposition building as shall be found necesary, will be fitted up to receive the specimens of art, which are to be arranged according to the different parts of the Union in which they may happen to have been constructed. The rest of the building not occupied in this way will be decorated with flags, evergreens, and appropriate mottoes. Music will be supplied by a purely original plan. Nothing but nature's songsters, and only such of those as wear feathers, are to be employed. But it is proposed to secure as many of these as possible, and distribute them about the building so plentifully that the nights and days of the artistic festival shall be thoroughly filled with their music.

Mr. Greene moved that the Chicago Photographic Association throw open their rooms to welcome the photographic fraternity, visiting the National Photographic Association's convention in July. Carried unanimously. Mr. Greene was appointed a committe to procure badges, for members of the Chicago Photographic Association to wear during the convention of the National Photographic Association; also to procure a flag to unfurl from our headquarters, as a guide to strangers.

Mr. Hesler stated he had lately received several hundred fine lantern transparencies, which he would be pleased to exhibit before the Society. Mr. Hesler's offer was accepted, and Wednesday evening, the 10th inst., fixed as the time. The Secretary was instructed to notify all photographers of Chicago, inviting them to be present, with their ladies, and such friends as they may choose to invite.

On motion, adjourned.

BOSTON PHOTOGRAPHIC ASSOCIATION.— Friday evening, June 5th, 1874. The committee appointed at the previous meeting to make arrangements for those wishing to attend or exhibit at the National Photographic Association, at Chicago, reported progress; having arranged for those sending pictures, to box and forward them to the store of B. French & Co., from which place they will be shipped about the 1st of July, all together. Quite a number signified their intention to send specimens.

Messrs. Black and Hallenbeck were appointed a committee to issue a circular to those that would send pictures, informing them of the arrangements made, with instructions for shipping.

The President read a circular from the Secretary of the Massachusetts Mechanics' Charitable Association, inviting the photographers to furnish pictures, to exhibit at the Twelfth Exhibition of their Association, which will be held in Boston, commencing on the 16th of September, and closing on the 7th of October.

Quite a number of tickets were taken for the mammoth camera and tube.

A very fine lot of cards and cabinets from Mr. Delamater, of Hartford, Conn., were left for inspection, being very fine in chemical effects, as well as lighting and posing, and elicited some very flattering remarks from the members.

Mr. Prescott (who was elected to membership at the last meeting), brought in some 8 x 10 portraits, which were very nicely finished, and received much praise.

Mr. Thomas R. Burnham, the prince of large plates, had quite an exhibition of pictures, consisting of groups and twothird-length portraits, made on 20 x 24 plates, and very finely lighted and finished.

Adjourned to the last Friday in June.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—Wednesday, June 3d, 1874. Mr. Sartain, a member of the Franklin Institute, who was present during the evening, called the attention of the Society to a pamphlet, in which regulations, &c., were set forth, relative to an exhibition of American Art, to be given under the auspices of the said Institute; in October next. Mr. Sartain said that it was desired that the art of photography should have a prominent place among the fine arts, and that the members of the Franklin Institute invited the co-operation of this Society, in order that the photographic display might be made as effective as possible. Mr. Sartain also said that premiums would be awarded for the best specimens of work, &c.

After some conversation on the subject, Dr. Wilcocks offered the following resolutions, which were adopted.

"Resolved, That this Society have heard with satisfaction of the intention of the Franklin Institute, to include in their exhibition of art, in the month of October, a display of photographs.

"Resolved, That this Society will loan for said exhibition, any specimens of fine work which the Fine Art Committee of the

Institute may select."

A communication from Mr. M. Carey Lea, entitled the "Albumen Chloro-bromide Process," was read by the Secretary. The paper was accompanied by a proof of the process, which was examined with interest, and pronounced upon favorably.

Mr. Best exhibited a negative made by Sutton's wet process, with a ten-grain bromized collodion, eighty-grain bath, and a preservative of one ounce of glycerin, and three ounces of five-grain gelatin solution. Exposed fourteen hours after preparation with alkaline development and an exposure equal to a wet plate.

Mr. Carbutt exhibited a number of the London "Figaro," which contained a fine portrait printed by the Woodbury process. Mr. Carbutt spoke of the advance made in this department of photography, and that now, prints could be made cheap enough to be used as illustrations in periodicals, when made by the mechanical processes.

After adjournment, the slides sent in exchange by the Photographic Society of Edinburgh, were exhibited in the sciopticon. The collection is a large and fine one, and is composed principally of Scottish

GERMAN PHOTOGRAPHERS' ASSOCIATION. - Washing of Prints.-Several months ago, when Mr. Kurtz returned from his European trip, he spoke about Mr. Albert's, Munich, method of washing prints by means of a donche, and stated that he was impressed by it so favorably, that he would introduce it in his new gallery, then in course of erection. This he has done since, and the satisfactory working of it has induced Messrs. Charles Cooper & Co. to wash their prints on the same principle. Mr. Kleinhaus of the above firm explained the modus operandi at the last meeting.

After fixing, the prints are put in a flat trough, the bottom of which consists of grooved plate-glass, and is in an inclined position, to allow the water to run off; above this trough are several douches, conneeted by hose with a water-pipe running along the ceiling. To prevent the prints from being earried away from under the douches by the force of the water, they are put in half cylinders of glass, about twenty inches in diameter for large prints, and glass rods for smaller ones. When placed on top of these they will not move. After being washed on both sides for about five minutes, the silver test for hypo as lately published, fails to show any trace of it. Generally after thus washed, the prints are thrown in a tank with running water, till the whole lot is got through with.

Chromo-photographs.—Mr. Koans, of Kartstadt, N. J., exhibited several double photographs, or as called by him chromo-photographs. They have a very pleasing effect, and although the idea is not a new one, the process of making them is considerably improved.

Two prints are made from the same negative, one on albumen paper, the other on plain; the last one is printed only far enough to show all details. By any varnish, thinned a good deal by spirits of turpentine, the albumen print is made transparent, and fastened to the inner side of an oval convex glass. This is done by a thick mastic varnish or any colorless gum, as Canadian balsam, &c. Care has to be taken in this operation to get rid of all air-bubbles. Another oval convex glass is put at the back of this print, and the plain paper one is moved behind this glass, till both prints appear like one; then a piece of white cardboard furnishes the back, and the whole is fastened together around the edges by sticking-paper, and put in a suitable frame. For coloring these pictures, the prominent features as eyes, lips, and the finer details in dress, are colored on the back of the transparent albumen print, with thinner water colors; the rest is done on the plain print by dry colors being rubbed on pretty strong.

Mr. O. Lewin exhibited several Imperial cards with Rembrandt effect. They showed a remarkable progress in his work and were duly admired.

PENNSYLVANIA, PHILADELPHIA.—Some discussion arose on the question of competing for the medal offered each month, and the method of making the award.

Mr. Saylor spoke in opposition to awarding a medal. He thought it would be better to appoint a permanent committee to examine the work brought in by members, whose duty it should be to explain the merits and demerits of the different specimens. He would like to bring some of his work, and have somebody show him where he could improve. He had found it to pay him to come from Lancaster to attend these meetings, but he thought that by some such arrangement as this, he and all would be benefited a great deal more than by awarding a medal for the best picture, without any explanation being given why it was better than another, or what its rear merits consisted of.

The Committee on a Mutual Protective Association reported progress, and was continued. A letter was read from Mr. H. H. Hannay, chairman of the committee appointed by the Brooklyn Association for the same purpose, urging a national organization at as early a day as possible.

Mr. Carbutt spoke in reference to criticizing pictures that are brought in. He thought pictures might be exhibited by the lantern, and let some one explain the lighting, posing, chemical effects, &c. If members were sensitive about having their own work criticized, pictures not made by the members might be used. He thought in this way a great deal might be learned in the rudiments of the art, that we should be a long time in acquiring if left to work it out ourselves. He well remembered when he first learned to see light and shade on a face. It was a long time before he learned

this, but after it once came to him he then saw light and shade everywhere.

Mr. Carbutt said he had been questioned by photographers as to the cause of their paper turning brown. He said it usually occurred in warm weather, and when there was a great deal of moisture in the atmosphere. He suggested that after silvering, the paper be placed in a box—Shoemaker's fuming-box would be just the thing—the paper being in the upper part, and in the bottom place some unslacked lime; this absorbs the moisture, and permits the paper to dry readily. Any means of drying the paper quickly he thought would obviate the trouble.

Mr. Shoemaker said he used a neutral bath, and floated a very short time in hot weather, and in this way seldom had any trouble.

The Secretary said he had overcome the difficulty by keeping the silver bath cool, and less alkaline than in cold weather.

Adjourned to September.

The New Enamelled Souvenir Photograph.

This is the name given by Messrs. E. L. Brand & Co., of Chicago, to a new style of photograph, which we found them very busily engaged in producing when we visited them a few weeks ago.

The "Souvenir" is a gelatinized cameo picture, but by no means what is termed the Glace or California enamel picture. It is of a very superior quality and finish, which finish is due to the method employed for their production by Messrs. Brand & Co. These gentlemen are willing, and offer to teach their Souvenir process to any one desiring the knowledge, gratis, for they do not wish to be considered in the light of process sellers, and neither are they. But taking up the process as Mr. Brand brought it personally from France, improved as it was, they found it was not perfect, and by diligent and lengthened experiment that the great thing wanted to secure the very best results was a properly constructed press for moulding the picture, for without the proper cameo effect no one would consider the souvenir as a valuable souvenir at all, for it would be expressionless. Therefore these gentlemen set themselves about constructing a press of the desired kind, and they have perfected one which they think will make the Souvenir irresistibly attractive to any patron of good taste. These presses, made to mould all sizes from a carte to an 18 x 23 picture, are now ready for the market, and thanks to

Mr. Brand, who personally called upon us, we have witnessed their perfect working in our city, and the first photographer to whom it was shown, Mr. F. Gutekunst, purchased one of the largest presses, although he was working the Glacé process. They do seem to fill every requirement, but as the Convention is near at hand, and as Messrs. Brand & Co. earnestly invite all visiting photographers to call at their establishment, at 596 Wabash Avenue, and examine their beautiful Souvenir photographs and their Souvenir press, the most of our readers will have an opportunity of seeing with their own eyes what we so feebly describe. It is assuredly a great inducement to purchase the press when one can obtain free all the latest details for making the picture, which promises to be so popular, and is certainly very strikingly beautiful and attractive.

Be sure to look into the matter when you go to Chicago.

FURTHER ABOUT THE SOUTH-WORTH-WING PATENT.

DEAR SIR: As I have many inquiries from photographers as to the status of the case of Wing et al. against myself, will you permit me to say that the suit was inaugurated at this place over a year since, and was, I understand, the first of the kind instituted after the case of Wing vs. Schoonmaker, four years ago. If the rule of "first come first served" be applied, it will be tried first, although I learn from Boston that the complainants are crowding parties there, while they delay the case here. This looks suspicious. As I believe we have the best evidence in the United States on file, if the complainants, knowing this, bring the case at issue between us here to a speedy trial, and succeed in getting a decision in their favor, it will probably seem wise for others in a similar situation to settle upon the best attainable terms. If the decision be otherwise, as I can place copies of our testimony in the hands of all interested parties, they have but to obtain and file the same evidence to insure a like result, and at very little cost to them

At the commencement of the May term of the United States Court at this place, the case was entered upon the calendar, and we expect the same will be tried when reached in its order. How soon that will be it is impossible to tell, but probably not before August or September now, as the Court, I believe, takes a recess during hot weather. The counsel for defence have been ready and anxious for trial since February last.

J. H TOMPKINS.

GRAND RAPIDS, MICH., June 18th, 1874.

Editor's Table.

Our Foreign Medal.—We desire to remind our foreign subscribers of the gold medal we offer for the best three cabinet negatives sent us by the 15th of August. As this is the last opportunity we shall have to urge them to make something especially for us, we hope they will give the matter their early attention. Some have already sent their contributions, and we hope to see an animated contest.

LANDSCAPE MEDAL.—We also call attention again to our offer of a gold medal for the best three landscape negatives sent us by the 15th of August. These are to be the size for our illustrations. We hope all our landscape workers will bear this in mind, and make a little effort to secure something that will not only be an honor to themselves, but a credit to the art they represent.

Upon further examination we have found more of Dr. Vogel's Reference-Book that were damaged by water than we supposed we had. We can continue to supply them at the wet rate, fifty cents each.

ART WORKS. - In addition to the works advertised last month, we now have several others as follows: "Lessing's Laocoon," "The Old Masters and their Pictures," "Thoughts About Art," "Christian Art and Symbolism," "Modern Painters and their Paintings." These are all beautiful books, highly interesting and educational to all who are studying in this direction. We commend, especially to the attention of art students, Ruskin's work, entitled "A Handbook of Art Culture," which heads our advertisement last month, as one of the most admirable works that has recently appeared on this subject. They are all worthy of careful study, and no class can be benefited by them more than photographers who are trying to gain some knowledge of art, and rise above the mere mechanism of their profession. We would call the attention of our local societies who are forming libraries, to these works, and suggest this as a means of placing them within the reach of all. It is only a few years since such books as these were not to be had, and we rejoice that the interest awakened in art matters in this country has called for the publication of

SOMETHING NEW —Our readers have no doubt noticed that we proposed something new. This is a leaflet similar to the one we have published for some time, entitled "To my Patrons." It is an improvement on that in many respects; is beautifully gotten up, with an illustrated cover, and makes a very beautiful and attractive little work. See advertisement.

THE SCOVILL AND HOLMES MEDALS.—Those interested should bear in mind that these medals are given for the best improvement in photography. Those wishing to compete with novel apparatus or processes should send their models or formulæ to the awarding committee at an early day.

BOSTON TO CHICAGO.—Messrs. Benj. French & Co., of Boston, have generously offered to receive and ship to Chicago all boxes of pictures intended for the Exhibition. Sent in this way they will go much cheaper and safer. The Boston Society has issued a circular to the photographers of New England calling their attention to this offer, and giving directions for sending goods. The circular concludes with the following reference to the Mammoth Offer:

"Messrs. Benjamin French & Co. have presented to the National Photographic Association a mammoth No. 9 Voigtlander tube, valued at \$425 and the Scovill Manufacturing Company have also presented a 17 x 20 camera box, suitable for the above tube. The tube and box are to be disposed of by drawing, the proceeds to be given to the National Photographic Association. Six hundred tickets are to be sold at \$3.00 each; and the first number drawn will entitle the holder to the prize."

Secure your tickets before the Convention.

THE CHICAGO PHOTOGRAPHIC ASSOCIATION held an adjourned meeting on Wednesday evening, June 10th, to which their ladies and friends were invited, for the purpose of witnessing a sciopticon exhibition by Mr. A. Hesler. They were entertained with views in Asia, Africa, China, England, France, &c.

We are glad to see an interest in exhibitions of this kind, as there is nothing so easily gotten up that is so interesting and instructive. MR. C. D. MOSHER, of Chicago, held his annual art receptions on the evenings of the 2d and 4th, and the afternoon and evening of the 6th of June. We received a very neatly gotten-up card of invitation, together with a catalogue of pictures on exhibition. Such entertainments as these advertise a gallery and help business.

MESSRS. HUNTINGTON & BARTRAM have recently opened a fine new gallery in St. Paul, Minnesota. We are glad to see the art-demanding such establishments, and wish them success.

Mr. W. H. Rulofson, of San Francisco, expects to attend the Chicago convention. We think we can be safe in promising him a hearty reception.

A New Firm.—Mr. Frank Jewell, whose name is doubtless familiar to many of our readers, has sold his gallery at Scranton, Pennsylvania, and formed a copartnership with Mr. Brownell, under the firm of Brownell & Jewell. Their gallery is at 889 Broadway, New York. We congratulate Mr. Jewell on having found a wider field for the exercise of his abilities and enterprise, and wish the new firm every success.

Excursion to Chicago.—We would call the attention of those who think of starting from Philadelphia to the notice we gave last month, under the head of "All About Chicago," that one or two Pullman cars will be chartered for the trip, and we would be pleased to have all who will, join us and help make up a pleasant party. Please notify us a week in advance, so that we may make the necessary provisions. Will start Thursday or Friday previous to the Convention.

VIEWS OF EGYPT, NUBIA, ETC.—Messrs. W. A. Mansell & Co., No. 2 Percy Street, London, have sent us a series of catalogues of views which they publish, and we know from a visit to their establishment that it is the most advantageous place in London to purchase. They supply views of all parts of the world at very low prices, and best of all, of most excellent quality. We have some before us now of Egypt, Nubia, &c., from negatives by that prince of English landscape photographers, Mr. Frank M. Good. We always had a profound admiration for Mr. Good's work. No one excels him, and we are glad he has secured such good printers and publishers. Visitors to London should be sure to visit them.

OUR ADVERTISEMENTS this month will well repay a careful reading. The dealers and manu-

facturers always make their best show about the time of the National Photographic Association Convention, and we have done our best for them in the way of display. What with our extra advertisements, the beautiful prize pictures, and the display of woodents in the articles, this may be called a pictorial number. Read it carefully.

VIEWS OF THE INTERIOR AND EXTERIOR OF THE NEW MASONIC TEMPLE, PHILADELPHIA.—Mr. F. Gutekunst of this city has the exclusive right to make negatives of this superb Temple. Mr. James Cremer publishes the pictures in connection with Messrs. Benerman & Wilson. The stereo size is now ready, as will be seen by reference to the advertisement, and they are not only interesting to all brother Masons, but likewise most interesting as studies of the various orders of architecture—Egyptian, Doric, Ionic, Corinthian, Gothic, &c. As photographs they are unexcelled.

PHOTOGRAPHS OF HORSES.—Messrs. Schreiber & Sons, 818 Arch Street, Philadelphia, have just published a very beautiful work containing photographs of the principal race-horses of the country. It is handsomely bound and a great credit to the publishers, who excel in this sort of work.

Another Teacher in Photography.—Those of our readers who need instruction in photography will feel glad to know that they can avail themselves of the services of one who is most competent to teach them. We allude to Mr. Walter C. North, late of Utica, N. Y., who is well known by his work to our readers, and who, having recently sold his gallery, will visit those who desire instructions in any branch of the art on very reasonable terms. Among other things he includes the Glacé process in detail. As a man and as a photographer he is first-class, and it gives us great pleasure to commend him to the needful. His present address is Rondout, N. Y.

VENETIAN VIEWS.—Messrs. H. F. & M. Munster, Venice, Italy, have sent us a beautiful large photograph of the tomb of Canova, and also a catalogue of their publications, which embraces a very fine collection at low prices.

Photographic Lenses: On their Choice and Use. By J. H. Dallmeyer. Revised and edited for American readers—is the title of a very useful pamphlet which all photographers should read before purchasing their lenses. The editor claims to have corrected some errors in the original in order that American readers may not be misled. All dealers have it, we understand, and we recommend its perusal.

CHAS. W. STEVENS'

"WIDE ANGLE" & "RAPID RECTILINEAR"

Great Central

Photographic Warehouse,

150 CONTRACTOR OF STREET, CONTRACTOR OF STRE

In rigid setting, on the cash plan. Especially reconstructed for the N. P. A Convention of 1874.

New Curves, Improved Machinery, etc.

The "Wide Angle" "Great Central" has this advantage over existing houses.

IMMENSE ANGLE—taking in orders from all parts of the country, and filling all bills accurately.

Can be used with less money, for a large quantity of goods (remember, this is important); "QUICK ACTING." Prompt in filling all orders, and giving the best satisfaction to its patrons. Try the "Wide Angle" and satisfy yourself.—WARRANTED.

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Photographers' Posing Furniture a Specialty

AT THE INDUSTRIAL ART WORKS.

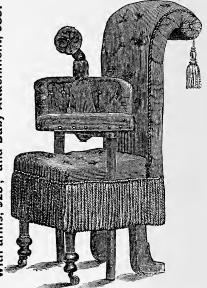
C. A. SCHINDLER, Manufacturer and Patentee,

P. O. Box 63, WEST HOBOKEN, N. J., opposite West 23d Street, New York City,

Offers to consumers, and the trade at large, that popular line of goods lately introduced through the New York market, at reduced prices. Specially recommendable is the



OR, CHAIR OF THE FUTURE. arm's, \$25; and Baby Attachment, \$35



This is the only sliding-back chair yet produced in which the brittle cast-iron in the main part is avoided. It is constructed of hard wood and wrought-iron. The rigid back rises over twelve inches, making it equal to six chairs in one. It is luxuriously upholistered and trimmed, and, through its elegance and comfort, gives the sitter a graceful and natural position without the aid of objectionable head and body braces.

A practical experience of over twenty-five years in manufacturing fine furniture, for New York City trade. should be a sufficient guarantee for their quality. Special orders promptly forwarded. Novelties constantly added. Pedestals, Adjustable Curtains, with fixtures, Imitation Rocks, Ivy Vines, Eye Stands, &c., &c. Material for recovering, &c., furnished. The principal New York stockhouses have also adopted my

PRICE LIST—All Articles in Finished Black Walnut.

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66	32.	Baby At	tachme	nt. sep	arate									12	00
				,1											

E. WEISKOPF, MANUFACTURER OF OPTICAL LENSES,

No. 182 CENTRE STREET,

(UP STAIRS)

Cor. Hester Street.

NEW YORK.

THE PHENIX PLATES OVER ALL!

The Phenix Plates have won over the best Ferrotypers in the land, and are constantly receiving more and more praise. They are UNEQUALLED.

PRICE LIST-PER BOX.

SIZES, 1-9 1-4 41/4x61/2 1-2 4½x10 8x10 10x14 4-4 EGGSHELL, \$0.80 \$1.25 \$1.85 \$1.85 \$2.20 \$2.20 \$2.40 \$2.40 \$2.70 \$2.70 \$0.14 GLOSSY, 1.35 2.00 2.00 2.35 2.352.70 2.70 2.90 90 2.90

PHENIX PLATE CO.—Scovill Mfg. Co., Agents, 419 & 421 Broome St., N. Y.

CHAMPION PLATE—Black or Chocolate-Tinted.

10×14 ,	Eggshell,	per box,	200	plates,				\$24	00
10×14 .	Glossy.	- 46	200	44				26	00

SCOVILL MFG. CO., 419 & 421 Broome St., N. Y.

CAUTION.

THE PUBLIC ARE HEREBY NOTIFIED THAT THE

PHILADELPHIA CARTE ENVELOPE.

Manufactured by Nixon & Stokes, Philadelphia, and sold by the regular stockhouses (who will not deal in contraband goods), is the only Carte Envelope that is patented.

ALL OTHERS ARE AN INFRINCEMENT

and parties buying, selling, or using them will be dealt with according to law.

We warn the trade against buying Carte or Picture Envelopes of travellers who are not connected with the regular stockhouses.

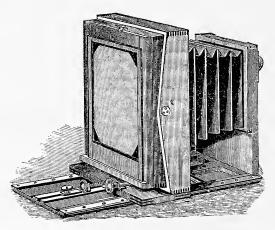
NIXON & STOKES,

No. 2400 VINE STREET, PHILADELPHIA.

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INSIDE, OUTSIDE, AND THROUGHOUT, THE AMERICAN OPTICAL COMPANY'S APPARATUS IS

UNDENIABLY THE BEST!

And has been so decided repeatedly at Fairs and Exhibitions; and, better still, by the thousands of photographers who use it all over North and South America, and even in Europe.

A COMPLETE CATALOGUE of this Apparatus will be issued soon. Duplicate copies supplied gratis. The list covers

Apparatus of all kinds,

Harrison Portrait Lenses,

The Unequalled Globe Lenses,

The Celebrated Ratio Lenses.

Photographers desiring to examine the merits of these goods will find them kept on hand by every stockdealer in the country.

ALL FIRST-QUALITY BOXES ARE SUPPLIED WITH SOLID GLASS CORNERS IN THE HOLDERS, WITHOUT EXTRA CHARGE.

SCOVILL MANUFACTURING COMPANY, New York.

CARD ENVELOPE

This popular Envelope is now made of a variety of shapes and sizes, to suit all classes of Cabinet, Victoria, and Carte Photographs, and Ferrotypes.

Excellent Cap Paper of various tints is used, and the openings are oval arch top, embossed and gilt.

Their manufacture is secured by letters patent, and all others are infringements.

PHILADELPHIA

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ENVELOPES.



PHILADELPHIA

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ENVELOPES.

MILLIONS OF THEM ARE SOLD ANNUALLY,

And they are the safest envelope for mailing, the most beautiful to deliver pictures in, and, when the flap is turned back (see cut), they form an elegant stand for the picture.

Specimens will be supplied by any dealer in the country, with prices. They are sold in large quantities and kept constantly in stock, by

SCOVILL MANUFACTURING CO., New York.

E. & H. T. ANTHONY, New York.

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BENJ. FRENCH & CO., Boston.
GEO. S. BRYANT & CO., Boston.
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THE CREAT

National Photographic Emporium,

No. 46 North Charles Street,

BALTIMORE, MD.,

THE MOST COMPLETE AND BEST REGULATED STOCKHOUSE IN AMERICA,

FURNISHING

EVERYTHING PERTAINING TO PHOTOGRAPHY

OF THE FINEST AND BEST QUALITY,

AT THE LOWEST MARKET RATES.

A SPECIAL DISCOUNT SYSTEM,

AN IMPORTANT FEATURE TO CASH BUYERS.

Send for the New Price List, Illustrated, gratis on application.

"The Photographer's Friend,"

Published by this thriving Emporium, is issued for 1874 as a

BI-MONTHLY PHOTOGRAPHIC MAGAZINE,

And will excel in practical instruction and beautiful illustrations all the previous efforts.

Terms, \$2.50 per annum, in advance.

A. M. COLLINS, SON & CO.,

Photographic Card Warehouse,

18 S. Sixth St., and No. 9 Decatur St.,

PHILADELPHIA.

We have recently made the following additions to our Stock:

- AN ASSORTMENT OF WHITE AND LIGHT BUFF CARDS. 8 x 10, 10 x 12, and 11 x 14, with Oval and Square Card-Size Openings, designed to furnish a cheap and convenient means of mounting photographs in groups of 3, 4, 5, 6, 7, and 8.
- BEVELED. GILT-EDGE, CARD AND CABINET MOUNTS, Black and Rose Tint.
- BON-TON CARDS. Nos. 12, 13, & 14, with OVAL AND ARCH-TOP OPENINGS.

FITZGIBBON'S PATENT ADHESIVE FERROTYPE MOUNTS. Nos. 3, 4, 5 & 6, OVAL OPENINGS; Nos. 9 & 10, ARCH-TOP OPENINGS,

\$3.25 per 1000; No. 12 OVAL AND ARCH-TOP OPENINGS, \$4.37 per 1000.

In addition to the above, we invite attention to our new line of Card and Cabinet Mounts, No. 42, White and Tinted, Enameled Backs, with Plain Face. This quality may be used in Burnishing Machines. Also to Gilt Beveled Edge Card and Cabinet Mounts of a thickness suitable for Albums: No. 43, Black, and No. 36, White.

Morrison's Wide-Angle View Lenses

Patented May 21st, 1872.

(See our article on page 69 of the May, 1873, number.)

These Lenses are constructed on scientific principles; they embrace an angle of fully 90 degrees, and are absolutely free from distortion and flare.

No.	Size View.	Focal Length.	Price.					
1	3 x 3	2½ inch.	\$40 00 per pair.					
2	$3\frac{1}{2} \times 5$	3 "	40 00 " "					
3	$4 \times 5\frac{1}{2}$	4 "	40 00 "					
4	$4\frac{1}{4} \times 6\frac{1}{4}$	41 "	40 00 "					
5	5 x 8	5 "	40 00 "					
6	$6\frac{1}{2} \times 8\frac{1}{2}$	6 "	30 00 each.					
7	8 x 10	8 "	40 00 "					
8	11 x 14	10 "	60 00 "					
9	14 x 17	13½ "	80 0 0 "					
10	17 x 20	15½ "	100 00 "					
11	24 x 30	18 "	160 00 "					

REMARKS.

Nos. 1 to 5 are all made in matched pairs for stereoscopic work. The shorter-focussed Lenses are especially adapted for street and other views in confined situations. For general purposes, a pair of No. 5 Lenses will be found most useful. Equipped with these, and a new Philadelphia Box, the photographer will be prepared for stereoscopic or the popular 5 x 8 views.

SCOVILL MANUFACTURING CO., New York, Trade Agents.

THE

"PEERLESS" PORTRAIT LENS.

ALL SIZES READY.

PRICES:

1-4 size. v	ith central	stops	· · · · · · · · · · · · · · · · · · ·	\$12	50
	**				
4-4	44	4.6		50	00
Extra 4-4	* *				
1.2	"		quick acting		
4-4	"		"		
Extra 4-4		4.6			

These lenses are guaranteed first-class in every respect.

SCOVILL MANUFACTURING CO., New York.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. ** We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

Peace and prosperity has been the lot of those photographers who have been wise and bought their supplies of Chas. W. Stevens, 158 State Street, Chicago. It costs but little to satisfy yourself of the fact. When you come to the N. P. A. Convention, in July, call on me at the "Great Central," or send your order if you cannot visit our city.

The Rapid Photo. Washer will be on exhibition at Chicago.

Universal Light Modifier

(Nason's).

At which the *universal* host up sent
A shout
In praise.

See it at Chicago.

Nasonian Cut-Outs.

Latest novelty-unique, useful.

Exhibited at Chicago.

Non-Ague

Camera Stand. "Never shakes." Go to Chicago and see it.

Fourteen in One.

Do not fail to go to Chicago and examine "Fourteen in One." Nason will exhibit it.

Nason's Inventions.

"Improved Background Carriage;" "Universal Light Modifier;" "Photo. Eye Rest;" "Non-Ague Camera Stand;" "Fourteen in One;" "Nasonian Cut-Outs;" "Infantine Background;" "Magic Mirror;" "N. P. A. Badge," and many other novelties will be exhibited at Chicago. Go! by all means, go.

Criswold's Stereoscopic Compositions. Read advt.

For Sale.—A first-class gallery in Washua, Iowa. A live town; population 2000. Gallery newly fitted up; centrally located; ground floor; plenty of room; north sky and side-lights.

Plenty of instruments for doing all classes of work. Country well settled. No opposition. Will be sold cheap. For particulars, address

J. E. RICH, Charles City, Iowa.

Wanted, for Cash.—One 14 x 17 camera box; one 7 x 10 ferrotype box; four 1-4 tubes.

Address J. McCord, Indianapolis, Ind.

Baltimore

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Stockhouse, Stockhouse, Stockhouse,

Chas. A. Wilson,
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Chas. A. Wilson,
No. 7 North Charles St.
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No. 7 North Charles St.

For Sale.—At Mauch Chunk, Pa., Brown's (deceased) Photographic Gallery; fixtures and stereoscopic view negatives, of the coal regions, cheap. A photographer can open immediately, print the views and sell all he can make during the season. Over 90,000 visitors last season.

Address REUBEN KNECHT, Easton, Pa.

Linn's Landscape Photography is the book for the season.

Wanted—An energetic partner with \$2500 cash, or more, in a good flourishing gallery in one of the handsomest cities of the Union. Would sell out entire, but prefer a partner. Address

"32," care Benerman & Wilson, Philada.

Newell's Baths and Dishes having been indorsed by the trade, have been placed in the hands of all stockdealers for sale. Please inquire for them.

Luxury—a clear conscience. This rare photographic experience can be easily possessed by all the "Sons of light;" it comes from the satisfaction of buying your supplies at the "Great Central" Photographic Warehouse of Chas. W. Stevens, 158 State Street, Chicago. You will be in our city to N.P.A. Convention, call and see me.

USE WAYMOUTH'S VIGNETTE PAPERS.

FOR SALE.—Four 1-4 Darlot tubes, set in brass plate, for making four 1-4 pictures at one sitting, cost \$36, will be sold for \$21; one A. O. C. stereo. box, new, cost \$35, will sell it for \$21; also, one 1-2 size camera box for \$3, has been used but little and all are as good as new.

These goods are sold for one who has quit the business. Address

J. M., care of Lon. Blackburn.
Box 723, Youngstown, Ohio.

These dull times you must bring out novelties and improve your work. None of the late inventions approach in beauty, style, simplicity, ease, and cheapness, Bendann's Patent Backgrounds. The outlay is trifling, their application easy and prompt, and the result PAYS. You cannot do without them. For sale by all stock-dealers, and by Daniel Bendann, Baltimore. Thousands have been sold to London, Paris, Berlin, Vienna.

HAPPINESS secured to the photographer by visiting the N. P. A. Convention, in July, and during his stay making frequent calls at the "Great Central" Photographic Warehouse of Chas. W. Stevens, 158 State St., Chicago. The largest stock and lowest prices.

If you want to improve your work and save time get the Rapid Photo-Washer.

FOR SALE.—A good gallery in a thriving town. Population 1500, and large country trade. This is a rare chance for a young man to establish a permanent business, with a small investment. Has good north light and first-class instruments, and all in good running order. Price, \$250. For particulars, address

B. S. WILLIAMS, Tunkhannock, Pa.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition.

For Sale.— A first class portable gallery, well equipped and in good order, now located at one of the popular summer resorts; will be sold cheap on account of sickness. For particulars, address E. P. Southwick, Photographer,

Greenwich, Conn.

Gallery for Sale.—I wish to sell my gallery in Athens, Ohio. Rooms well arranged and pleasant. Population 3000. New apparatus, good light. Price, from \$300 to \$500. Bad health reason for selling. For further particulars, address

John H. Tomlinson,

Athens, Ohio.

See advertisement of Rapid Photo-Washer.

A Bargain.—One Bryant's posing chair, nearly new, \$18; one 8 x 10 mahogany camera, in perfect order, rubber bellows, patent guides, and focusing screw, \$20; one 1-2 size Harrison's plain lens, \$16. For sale for want of use.

Address Box 341, Great Barrington, Berkshire Co., Mass.

Criswold's Stereoscopic Compositions. Read advt.

Wanted.—A first class retoucher, one who would be willing to assist at printing for a few months. Address 209 Jefferson Avenue, Detroit, Mich.; or see the undersigned at Chicago,

J. H. SWAINE.

Photographers in the South and Southwest who would buy goods to their best advantage would do well to patronize the Stockhouse of Chas. A. Wilson, No. 7 North Charles St., Baltimore, Md. Send a trial order.

ATTENTION is called to J. A. Anderson's Camera Boxes and testimonials in our advertisements. These boxes are fast taking rank among the leading boxes in the country, and photographers will find it to their advantage to post themselves in regard to prices, &c.

Linn's Landscape Photography is the book for the season.

OUR LATEST ILLUSTRATED PRICE LIST has been published. Central manufacture for photography.

T. F. Schippang & Co.,

Berlin, S. W. Neuenburger St., 25.

The Rapid Photo-Washer will wash your prints in ten minutes.

J. A. Anderson, Manufacturer of Photographic Apparatus, 65 East Indiana St., Chicago. Send for price list.

USE WAYMOUTH'S VIGNETTE PAPERS.

Photographic Gallery for Sale.—This gallery is located on Pennsylvania Avenue, be-9th and 10th Streets, west, Washington, D. C.; the best business part of the city. Has superior light, and first-class instruments and fixtures. Terms moderate. Address

Mrs. W. Ogilvie, 905 Pennsylvania Avenue, Washington, D. C.

Please read the two-page advertisements of Charles A. Wilson, Baltimore Stockhouse, No. 7 North Charles Street. Please remember the number, 7 North Charles St., Baltimore, Md.

DANVILLE, IOWA, March 11, 1874. Mr. J. A. Anderson.

DEAR SIR: After a month's trial of the box bought of you, I am willing to add my testimony as to the superiority of your camera boxes. It works like a charm and is satisfactory in every respect.

Yours truly,

HUBERD WILLIAMS.

Criswold's Stereoscopic Compositions. Read advt.

I most cheerfully recommend Mr. J. A. Anderson's Camera Boxes, for beauty, durability, and cheapness. I have two in my establishment since my opening here, and find them fully up to the claims of a first-class instrument.

W. A. Armstrong, State and Quincy Streets, Chicago.

Mr. Armstrong has for a number of years past been engaged in business in Saginaw. Mich., and is a photographer well known to the fraternity.

Go to the Exhibition and see how they wash pictures in ten minutes "out west."

For Sale.—My newly-fitted rooms in Spring-field, Southwest Missouri. Population over 7000. The central trading point for all the surrounding country. Situated on the line of the Atlantic and Pacific Railroad. Rapidly building up with all kinds of factories. Climate most delightful. Only first-class rooms in the southwest part of the State. Well furnished with latest improvements. North light top and side. Plenty to do, and good prices for doing it. \$800 cash will purchase. Address W. S. Johnson,

Springfield, Mo.

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Compositions. Read advt.
USE WAYMOUTH'S VIGNETTE PAPERS.

Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

To Landscape Photographers.—Please remember, during the coming season, that we are in the market constantly for the purchase of good Stereoscopic Negatives of interesting American Views. Send proofs and prices of negatives to Benerman & Wilson, Photo. Publishers, Philadelphia.

THE subscriber will dispose of the following articles, for want of use. One 4-4 Usener lens, selected by myself, warranted fine; one 1-2 size French lens made by Gasc & Charconnet, fine; one 4-4 mahogany view and portrait box, double swing-back, fine and in good condition; one 2 tube box, swing-back, for plates 41 x 61, 2 holders, good; one sliding card box, Peace's make, 4 card and & holders; two 4-4 plain boxes, with holders considerably worn; one large camera stand, Peace's make; two backgrounds on frames 8 x 8, heavy castors; one circular platform, on castors 44 feet in diameter, covered with carpet; one Knell's fringed chair; one 8-10 covered rubber field bath; one 4-4 porcelain bath; two pieces canton matting, each 10 x 14 feet, good; one letter copying press, 11 x 17 inches.

Address William H. Rhoads, 1800 Frankford Road, Philada, Pa.

Criswold's Stereoscopic Compositions. Read advt.

St. James Hotel, Grant, Cobb & Hilton, Proprietors, corner of State and Van Buren Sts. (two blocks only from the N. P. A. Exhibition), Chicago. \$2.50 per day to photographers, special.

WAYMOUTH'S VIGNETTE PAPERS.

"I am using and like them very much thus far."—A. MARSHALL, Boston.

"A sensible improvement."—GEO. S. COOK, Charleston, S. C.

Wealth will be the reward of your labors if you are industrious, saving, and buy your supplies of Chas. W. Stevens, at his "Great Central" Photographic Warehouse, 158 State Street, Chicago. You anticipate a visit to our city, in July, to attend the N. P. A. Convention, make it your business to call at the "Great Central."

MARCY'S SCIOPTICONS, MCALLISTER'S MAGIC LANTERNS

IN CREAT VARIETY.

LANTERN SLIDES, OF THE WORLD.

LARGE STOCK JUST RECEIVED BY

BENERMAN & WILSON, Importers, Seventh and Cherry Sts., Philada.

DAMAGED LANTERN SLIDES

The recent fire in our establishment caused a part of our large stock of Lantern Slides to be damaged by water. For all practical uses they are not damaged at all. Any photographer, by repairing the sticking paper around them, may make them as good as new. We cannot repair them to look like fresh stock, so we offer them at the following reduced rates:

Levy's Foreign Views (Holy Land, Paris, and Europe), 50 cts.

Retailed at \$1.25.

Colored Scripture and Comic Slides, . 60 and 75 '
Retailed at \$1.25 and \$2.00.

American Views and Statuary, 40 "
Retailed at 75 cts. and \$1.00.

Desprise Care given to selecting for parties who cannot be present to select for themselves.

BENERMAN & WILSON,

Seventh and Cherry Streets, Philadelphia.

CHAMELEON BAROMETER



INVENTED BY WALTER B. WOODBURY, Esq., London.

The Greatest Scientific Novelty of the Age.

FORETELLS THE WEATHER.

MAILED, ON RECEIPT OF PRICE, BY

BENERMAN & WILSON,

Seventh and Cherry Sts., Philadelphia.

50 Cents.

-50 Cents.

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SCHWARZE & VALK,

WILLIAM VALK.

NO. 614 ARCH STREET, PHILADELPHIA.

IMPORTERS OF THE GELEBRATED BRANDS OF GERMAN Albumen Paper, and Arrowroot Plain Salted Paper.

DEALERS IN PHOTOGRAPHIC MATERIALS OF EVERY DESCRIPTION.

Will mail to any address in the country, post-paid, on receipt of \$1, one dozen sheets of Assorted Photographic Paper, each sheet being numbered for distinction.

TERMS IN ART; or ART LIFE.

BY CHARLES ELVEENA.

It explains all those Terms connected with Fine Art which are most important to know. No Educated Person should be without it.

It also contains the Prices of all articles connected with Painting, &c., which will be found a very useful reference.

PRICE, ONE DOLLAR.

Sent to any address, free of postage, on receipt of price.

For Sale by BENERMAN & WILSON, 7th and Cherry Sts., Phila.

STEREOSCOPIC VIEWS OF THE

MASONIC TEMPLE, PHILADELPHIA.

The Grand Lodge of Pennsylvania, finding from the rapid growth of the Order they must provide a more spacious edifice for the meetings of the numerous Lodges, in 1867 purchased the lot on the Northeast corner Broad and Filbert streets, suitable for their purpose, it being bounded on all sides by streets. With great care a plan was decided upon—James H. Windrim, Architect. The building is of granite, 250 feet long, by 150 feet wide, style of the Norman school, two stories and entresol, with pinnacles and towers; main tower 240 ft. from the base; foundation 31 ft. below the level of street.

The corner store was laid large 24th 1868, with appropriate Massaria corner again. From that time

The corner-stone was laid June 24th, 1868, with appropriate Masonic ceremonies. From that time, until September 26th, 1873, the date of dedication, the Building Committee labored indefatigably, and present, as the result of their labor, a Temple first in splendor since the days of King Solomon. The cost of building and furniture, one and a-half million of dollars.

The interior has one main hall, of Doric architecture, sweeping through from end to end, 250 feet

long, and 20 feet wide. On either side are the rooms set apart for the officials of the Grand Lodge, fitted up in the most approved manner. On this floor, also, is the "Grand Banqueting Hall," of the composite order of architecture, with decorations of flowers, game, and fruit. The room is 105 feet long, 50 feet wide; ceiling 30 feet, with accommodation for seating 500 persons. Upon this floor there is one Lodge room called the Oriental Hall, from its style of architecture. It will seat 200 persons. Its decoration and furniture strictly accord with the Oriental style, as do all the decorations and fur-

Its decoration and furniture strictly accord with the Oriental style, as do all the decorations and furniture of all parts of the Temple, conform to the style of architecture of the rooms in which they are placed. The heating and ventilating apparatus are wonders. The water is supplied from two sources; part from the city: but the main supply is from a well beneath the tower, which is forced into four cedar tanks of four thousand gallons capacity each, placed at different parts of the building.

The principal floor is divided into Lodge rooms—that of the Grand Lodge the largest; it is 105 feet long, 51 feet wide, ceiling 50 feet high; will seat 800 persons—it is in pure Corinthian style. Grand Chapter Hall is 90 feet long, 50 feet wide, and 50 feet high, and is in the Italian Renaissance style, and will seat 600 persons. The Commandery Rooms are situated in Eastern entresol, above the principal floor, of Gothic architecture, and will seat 500 persons. The suite consists of the Asylum, Council Chamber, Banqueting Hall, Armory, and Regalia Room. All are grandly magnificent. The remaining rooms are the Egyptian, Ionic, and Norman Halls, with others, each a marvel of beauty.

There are 40,000 Free Masons in the State, 330 Lodges, 60 being in the City of Philadelphia. \$2. per dozen by mail, post-paid. Or in sets of 12, 16, and 22, embracing the most beautiful views of the exterior and interior, at the dozen rate.

of the exterior and interior, at the dozen rate.

BENERMAN & WILSON, Philadelphia.

ANDERSON'S

SKYLIGHT and DARK-ROOM

WE HAVE BUT

COPIES LEFT TWENTY-FIVE

OF THIS VALUABLE BOOK.

And owing to the loss of the negatives no more will be printed. Those desiring to secure a copy will be wise if they do so now. PRICE, \$4.

BENERMAN & WILSON, Seventh and Cherry, Philada.

1874

Special Premium of Six Handsome German Cabinet Pictures of Ladies!

BY FRITZ LUCKHARDT, VIENNA, AUSTRIA.

These pictures are alone worth \$3 for the set, and more is asked for such by dealers.

Given to any one who will send us a NEW Subscriber for the year 1874.

What Others Think of the Prizes:

"These studies were greatly admired by the members present, and all were convinced that they were worthy of most careful study."—Minutes of the Chicago Photo. Association.

"These pictures were examined and much admired by all present."—Indiana Photo. Ass'n.

"The pictures elicited general praise; the draperies especially were very favorably commented upon."—German Photographers' Society, New York.

"The prints were thought to be worth more than the price which was charged for the journal, i.e., \$5; and the President, Mr. Black, stated that every operator should have a set, for he considered them to be most admirable studies, and superior to anything which he had seen heretofore."—Boston Photographic Society.

"They were accepted as being of a very high standard."—Brooklyn Photo. Art Association.

"The high artistic merits of the pictures, and their great value as studies for the progressive photographer, were conceded by all. The general harmony in the details of each print, the management of light, and beautiful rendering of texture were greatly admired."—Photographic Section of the American Institute, N. Y.

Special votes of thanks were given for them by the Photographic Society of Philadelphia; Photographic Association of West. Illinois; Chicago Photographic Association; Indiana, District of Columbia, and Maryland Photographic Associations; Photographic Section of the American Institute; German Photographers' Society, New York; Boston and Brooklyn Photographic Art Associations, whereat they attracted great attention and admiration.

A Few Words from those who have received them as Premiums for New Subscribers:

"I think when we say they are splendid it is only a mild expression of what they will bear."

—E. F. EVERETT.

"They are well worth striving for, and the photographers who allow this set to remain out-

side their collection don't deserve them."-J. PITCHER SPOONER.

"They are by far the best specimens of photographs of white drapery that I ever saw, and the artistic part leaves nothing to wish for."—
JAMES PARIS.

We make this offer as A MATTER OF BUSINESS, and not as a favor to any one on either side. It will pay to GIVE A YEAR'S SUBSCRIPTION TO YOUR OPERATOR or to your friend or customer, in order to SECURE THESE PICTURES.

BENERMAN & WILSON, Photo. Publishers, Philada.

THE Elaborate, Complete, BOWDISH Posing Apparatus. CHAIR.





Enabling the photographer to successfully secure every variety of pose with facility and reliability. It is admirably adapted to the varying necessities of female portraiture, and is equally suited for children, for vignettes, or for full lengths. The BOWDISH CHAIR is substantial in construction, elegant in design, and rich in upholstery and finish. Those who have purchased them, speak in the highest terms, as will be seen by the following



"About ten days ago I received the new chair you promised to send me when I saw you last, and would have written and acknowledged your kind favor long ago if I had correctly known your address. Accept my best thanks for this really beautiful chair, which now, after ten days' trial, has proved to be a decided success in every way. It has become the real favorite for posing in my studio. Besides this, in external appearance the new chair appears so much superior in finish, and is at the same time highly ornamental, and the head rest is so much easier handled than with any chair I have ever seen before. In short, it gives the sitter the greatest possible comfort and steadiness. I think the chair I have justly deserves the name of 'Perfect Posing Chair.'"—H. ROCHER, Chicago, Ill., January 10, 1873.

"Since receiving your posing chair, nearly a year since, I have had it in constant use, and am satisfied that it is the best posing chair in the market. It is easily worked, and is so well made that one will last a life time, and then be a valuable heirloom."—L. G. BIGELOW.

"The Bowdish Chair came in good order and gives the best of satisfaction. Should you wish a recommendation for it, say what you please and we will endorse it. You cannot praise it too highly."—SLEE Bros., Poughkeepsie, N. Y., Sept. 10, 1872.

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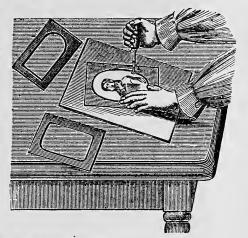
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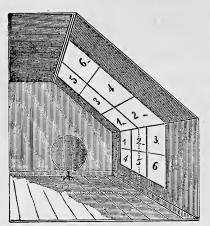
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How far the work serves these three ends the reader must judge from the testimonials below, of a

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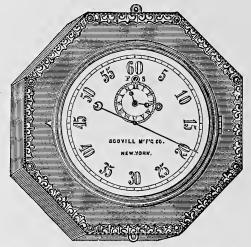
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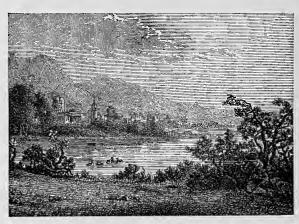
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Introductory. Main Requisites of a Good Photographic Landscape Artistic Effect. Proper Illumination. Direction of Light. Clouds. Length of Exposure.
Apparatus for Field Work. On the Selection of View Lenses. Camera Boxes. Bath Cups. Preliminary Preparations. Taking the Field. Hints on Printing and Finishing. To Print Clouds. Toning Bath for Views. On Fixing and Washing Prints.
Suggestions on Mounting Prints. To Cut Stereoscopic Prints. To Mount Stereoscopic Prints. Formulæ and Processes for Landscape Photography. Ever-ready Iodizer for Landscape Photography.

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Permanganate of Potash—Its Use in our Art.
Preparation and Using of Developer.
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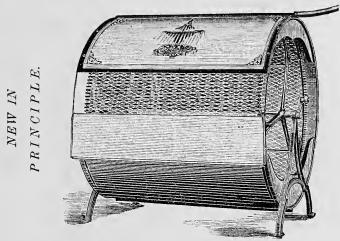
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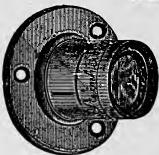
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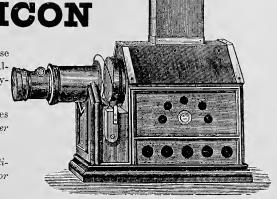
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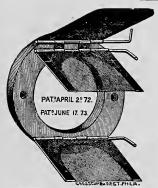
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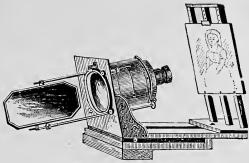
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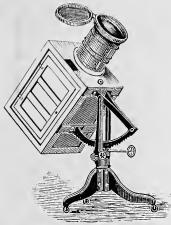
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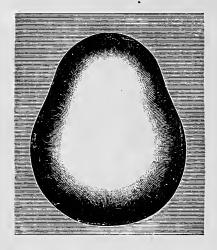
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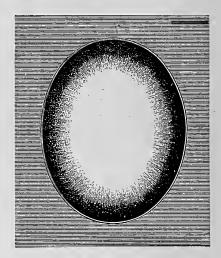
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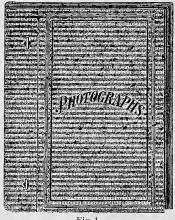




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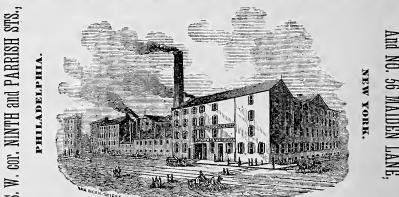
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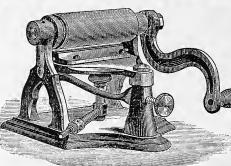
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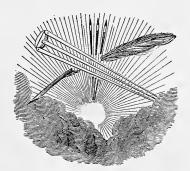
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NASON'S BACKGROUND CARRIAGE, CAMERA STAND, &c. NEWELL'S IMPROVED BATH-HOLDER. PATTBERG, LEWIS & BRO. Passepartouts, &c. PHENIX FERROTYPE PLATES. PHOTOGRAPHER'S POCKET REFERENCE-BOOK. PHOTOGRAPHIC PUBLICATIONS. PHOTOGRAPHER TO HIS PATRONS. Powers & Weightman. Photographic Chemicals. PREMIUMS FOR 1874, for New Subscribers to "Philadelphia Photographer." PRIZE PICTURES. RAU, GEO. German Albumen Colors. RICE & THOMPSON. Photo. Stock House. ROBINSON'S NEW PHOTO. TRIMMER. ROBINSON'S METALLIC GUIDES. ROHAUT & HUTINET. Photographic Mounts. Ross' Portrait and View Lenses. RYAN, D. J. Photo. Stock Depot, Chromos, &c. SAUTER, G. Passepartouts. SCHWARZE & VALK. Photo, Papers. Scovill Manf'g. Co. Photographic Materials. "S. D." CAMERA BOXES. SEAVEY L. W. Scenic Artist, Backgrounds, &c. SNELLING, H. H. Lebanon Rustic Frame. "Something New." STEINHEIL'S NEW APLANATIC LENSES. STEVENS, CHAS. W. Photographic Goods. THE PRACTICAL PRINTER. Vogel's Hand-Book of Photography. WAYMOUTH'S VIGNETTING PAPERS. Weller's Stereoscopic Treasures. WILSON, CHARLES A. Photographic Goods. WILSON, HOOD & Co. Photo. Materials, &c. WILLY WALLACH. Albumen Paper. WOODWARD, D. A. Solar Cameras. ZENTMAYER, JOSEPH. Lenses. ZIMMERMAN BROS. Photographic Stock Depot.

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Celebrated French

PORTRAIT OBJECTIVES

These celebrated lenses, which are

USED BY MONS. ADAM SALOMON, OF PARIS,

exclusively for making his

WORLD-RENOWNED PORTRAITS!

have been difficult to get, on account of the demand for them in Europe.

Having been appointed his American trade agents by Mons. Hermagis, we have pleasure in announcing to American photographers that we have just received an invoice of his lenses for

The Salomon Style, 8 x 10 size,

For Cabinet Size, extra quick,
For Cabinet Size, quick,

For Carte Size, extra quick,
For Carte Size, quick,

AND

HERMAGIS' NEW SYSTEM APLANATIC LENSES FOR VIEWS.

Also, HERMAGIS' INIMITABLE FOCUSING GLASSES.

These lenses are unsurpassed by any other. For further particulars and prices, apply to

BENERMAN & WILSON,

Seventh and Cherry Sts., Philadelphia, Pa.

NASON'S NOVELTIES

LEAD THE VAN!

ORDERS FOR 307 CASES OF THE

"NASONIAN CUT-OUTS"

Were taken at Chicago in two days—Thursday and Friday—and on our arrival home the following Wednesday, we found NINETEEN letters, containing orders from parties who saw the beautiful specimens on exhibition.

The Nasonian is the latest novelty in ornamental printing, and exactly fills a want long felt, and will have a larger and quicker sale than any other one article ever offered the American Photographer; for the simple reason that they are sold so low.

There is no cut-out in the market that is got up or put up in as good style as the *Nasonian*. The paper used is of a superior non-actinic quality. The designs (copyrighted) are unique and novel, and at the same time neat and artistic.

Through the suggestions of Messrs. Rocher, Mosher, Brand, and other leading photographers, we have added two new Grecian designs, and will hereafter put them up in THREE, instead of two different sized cases, viz:

CASE ONE contains 80 pieces—40 complete cut-outs, 20 sizes, and 10 different styles—for carte-de-visites only.

CASE TWO contains same number and styles as the above, but with $3\frac{1}{4} \times 4\frac{1}{2}$, to $3\frac{1}{2} \times 5\frac{1}{4}$ openings, suitable for cabinet cards, 4-4 and 8 x 10 frames.

CASE THREE contains same styles as above, but with 5×7 , $5\frac{1}{2} \times 7\frac{1}{2}$, and 6×8 openings, suitable for 4-4, 8×10 , 10×12 , and 11×14 frames.

EACH CASE contains cut-outs especially arranged for groups, and are sold at the extreme low price of Two Dollars.

ALWAYS try to be the first in introducing NEW STYLES to your patrons; and if your dealer is not enterprising enough to have these goods in stock now, don't wait, but enclose two dollars to us, and you will get either set wanted by return mail so quick you'll think you've had them six months.

We will send the THREE SETS COMPLETE to any part of America (express paid) on receipt of \$6.00.

We have taken great care in arranging and packing these cut-outs in elegant pasteboard cases, therefore we cannot change or break packages.

ORDERS FOR THE ABOVE, AND FOR

Nason's Background Carriage, Universal Light Modifier, Non-Ague Camera Stand, Magic Mirror, &c.,

Will receive prompt attention by being addressed to the

NASON NOVELTY COMPANY,

COLUMBUS, OHIO.

As See our other advertisements.

HANCE'S

PHOTOGRAPHIC SPECIALTIES.

ARE SOLD BY ALL DEALERS AS FOLLOWS:

ARE SOLD DI ALLI DEVIEWS VO LOPPOMO!
Hance's Double Iodized Collodion, Per pound, \$150Half-pound, 80 Cts.
Elbert Anderson's Portrait Collodion, Per pound, \$1.75Half-pound, 90 Cts.
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Cummings' Grit Varnish,
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1 01 20000,
Hance's Silver Spray Gun Cotton,
Per Ounce50 Cts.
Hance's Delicate Cream Gun Cotton,
Per Ounce,
Gill's Concentrated Chromo Intensifier,
Per Bottle,50 Cts.
Hance's Ground Glass Substitute,
Par Rottle BO Cts
Hance's Bath Preservative Heads off Pin Holes and all Bath Troubles,
Per Bottle, 100.

TRADE MARK:—THE BEST GOODS—FULL MEASURE. TRY HANCE'S PHOTOGRAPHIC SPECIALTIES.

See Testimonials in former and future advertisements.

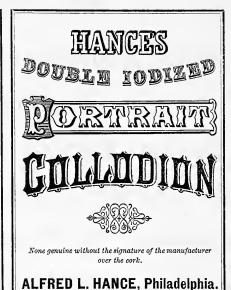
SCOVILL MF'G CO., Trade Ag'ts. ALFRED L. HANCE, Manufac'r, NEW YORK. 126 N. 7th St., Philadelphia.

BELOW IS A FAC-SIMILE OF THE LABEL USED ON HANCE'S NEW DOUBLE IODIZED COLLODION.—BE SURE YOU TRY IT.

I can confidently recommend it as being possessed of very superior advantages over any other Collodion, but not desiring to say too much about my own productions, respectfully request portrait photographers to try it. The advantages of a Collodion made with these new salts is spoken of by several leading photographers, as follows:

*" Although I have made use, extensively, of other iodides, I have never found any collodion to give such perfect satisfaction as this does after it has become ripe. ** * Like good wine, it improves with age."—J. CARBUTT.

"For fineness of film, exquisite detail, and the production of good printing qualities, I have never seen it equalled."—R. J. Chute.



BATH.

Nitrate of Silver, 35 grains.

Water, 1 ounce.

Iodize with Iodide of Silver.

Slightly acidify with C. P. Nitric Acid.

HANCE'S BATH PRESERVATIVE.

If you would escape the worries and vexations of the dark-room, use it. Messrs. R. Newell & Son say: "We have doctored these baths with your Preservative; it is invaluable."

HANCE'S BATH PRESERVA-TIVE. Knowing the difficulties photographers encounter in the use of the negative bath, arising from various causes, and often beyond the comprehension or ability of the operator to solve, I have sought for something that would not only cure, but prevent, many of the ills that negative baths are subject to.

In the "British Journal of Photography" of last year, Mr. A. L. Henderson recommended the use of nitrate of barytes as of great advantage in the bath. Acting upon this suggestion, and taking the nitrate of barytes as a basis, I have prepared a compound which I offer to the fraternity as a Bath Preservative.

It is a trite saying that an ounce of preven-

tive is worth a pound of cure, and I presume all photographers would appreciate the principle, and apply the preventue if it were within their reach. This Preservative has been proved to keep the bath in good working condition almost indefinitely. By its use the bath is worked with much less acid, consequently is more sensitive, streaks and stains are avoided, no pinholes from an excess of iodide, and redevelopment is seldom necessary. Disordered baths are at once restored, and an occasional evaporation and strengthening only is necessary to keep them in working condition. Photographers will find this a great boon. Try it and be convinced.

Full directions for use accompany the Preservative.

ALFRED L. HANCE, Manufacturer, 126 North Seventh St., Phila.

WHAT ARE HANCE'S PHOTOGRAPHIC SPECIALTIES?

HANCE'S BATH PRESERVA-TIVE. A sure preventive of pinholes, stains, &c. It preserves the bath in good working condition, and will be found worth its weight in gold.

HANCE'S DOUBLE IODIZED COLLODION. This is made by compounding the different iodides according to their equivalents, and producing a new salt. It is being used by some of the best photographers, but its general use is retarded, no doubt, by the extra trouble in making it. The peculiarities of this Collodion are good keeping qualities, its improvement by age, and the richness of effect produced in the negative, the film being perfectly structureless. As it requires time to ripen, I have the advantage of making a quantity and keeping it always ready to supply any demand.

TRAIT COLLODION is made according to the formula used by Mr. Anderson in Mr. Kurtz's gallery in New York. It is especially adapted to portrait work.

Owing to the cost of materials, manufac-

Owing to the cost of materials, manufacturing, &c., together with the royalty paid, the above brand of Collodion will be advanced May 1st from \$1.50 to \$1.75 per lb. All interested will please take notice.

A. L. HANCE.

HANCE'S WHITE MOUNTAIN COLLODION is adapted more especially to outdoor work, and for quick working, delineating foliage, frost-work, or sky, it stands unrivalled. It is made after the formula used by that celebrated mountain artist, B. W. Kilburn, of Littleton, N. H., whose work is too well known to need any comments.

CURTIS' NIAGARA FALLS COLLODION is another used for landscapes. The wonderfully beautiful views made by Mr. Curtis, of the great cataract, with this collodion, have a world-wide reputation, and are an indisputable evidence that he could have nothing better to produce such magnificent work.

TRAIT COLLODION is peculiar in that it is prepared without bromides, and is adapted for use with Black's acid bath. To those using the acid bath this collodion is indispensable. Formula on the bottle.

TRASK'S FERROTYPE COL-LODION is made especially for positive pictures. Mr. Trask has no superior in this class of work, and this collodion is the result of his practice and experience for years in proving what was BEST. It is made after his formula and ferrotypers will find it all that can be desired.

cummings' GRIT VARNISH gives a very fine surface for retouching. Those that use a varnish of this kind will find that this has no superior. By it the retouching is greatly facilitated and the same amount of work on a negative may be done with it in half the time that would be required without it.

HANCE'S SILVER SPRAY GUN COTTON is now being used by many of the best photographers, and the testimonials I am receiving are sufficient evidence of its excellence. I prepare it with great care, and warrant it free from acid, very soluble, gives good intensity so that no redevelopment is necessary, gives perfect detail, and a film pure and structureless.

HANCE'S DELICATE CREAM GUN COTTON is adapted to those who like a very delicate, soft-working collodion, giving all the modelling especially in the Rembrandt style, and with light drapery. Its sensitiveness renders it particularly adapted for children, or any work that requires short exposure.

GILL'S CONCENTRATED CHROMO INTENSIFIER is intended to strengthen the negative. It imparts a beautiful tone and gives excellent printing qualities.

HANCE'S GROUND-GLASS SUBSTITUTE is simply what its name implies, a substitute for ground-glass for any purpose that it is used for in the gallery. It is so perfect an imitation of ground-glass that it can only be distinguished by the closest scrutiny. Its surface is so fine that it is just the thing for cameras, and it is being used now very extensively for that purpose. To the landscape photographer a bottle of it is indispensable. If he breaks his ground-glass, which often happens in the field, he has only to coat a plate, such as he is sure to have with him for negatives, with the substitute, and in a few moments his ground-glass is replaced and his work goes on. It is equally useful in the printing room, and any photographer who has once used it will never again be without it.

HANCE'S SUBSTITUTE.

The SUBSTITUTE is in the form of a varnish; is flowed and dried the same as varnish, but dries with a granulated or ground-glass surface.

WHEREVER GROUND GLASS IS REQUIRED.

HANCE'S SUBSTITUTE ANSWERS EVERY PURPOSE.

FOR GROUND GLASSES FOR CAMERAS. FOR GLAZING SKY AND SIDE-LIGHTS FOR OBSCURING STUDIO AND OFFICE DOORS, FOR PRINTING WEAK NEGATIVES FOR VIGNETTE GLASSES, FOR A RETOUCHING VARNISH,

FOR SOFTENING STRONG NEGATIVES,

FOR THE CELEBRATED BERLIN PROCESS.

Use the "Substitute." Use the "Substitute."

PRICE, FIFTY CENTS PER BOTTLE.

LARGE QUANTITIES FOR STUDIO LIGHTS, &c., SUPPLIED LOW.

READ A FEW TESTIMONIALS:

The bottle of Hance's Ground Glass Substitute came safely to hand. I selected a good piece of glass, coated it with the Substitute, and in a few moments I had one of the finest ground glasses I ever saw. I have been using it four or five days, and the more I use it the more I am pleased with it. The "surface" is fine and delicate, and a great relief to the eyes. I would not be without a bottle for ten dollars.

Lon Blackburn, Operator, Le Roy's Gallery.

I would not be without a bottle for ten goliars.

R. Newell & Son's Gallery, 626 Arch St., Philadelphia, Feb. 17th, 1873.

I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "promise very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past ix months in my gallery, I can conscientiously pronounce them first-class in every respect. Your Ground Glass Substitute I consider one of the most practical and useful articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

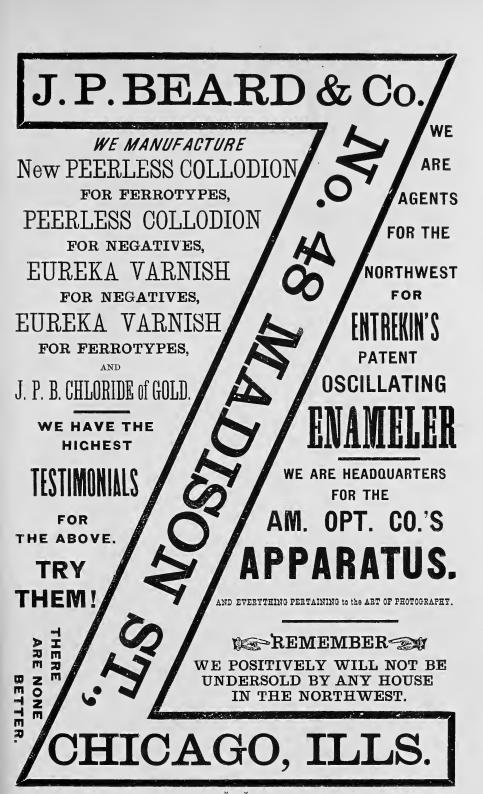
R. Newell

TRY

HANCE'S BATH PRESERVATIVE.

PRICE, \$1.00.

GUARANTEES REGULAR AND GOOD RESULTS.



THE PRACTICAL ORINGER DENTER OFFICE OF THE PRACTICAL OFFICE OF THE

A new work on Photographic Printing is

NOW READY!

ENTITLED

THE PRACTICAL PRINTER,

By CHAS. W. HEARN,

A gentleman who has devoted several years to photographic printing especially, and who is now engaged at it as his constant occupation.

The work gives all the instructions that a beginner could possibly want in detail, and is what the title indicates—practical.

It will also be found of invaluable service to any photographic printer, be he ever so skilled.

Too little attention has heretofore been given to Photographic Printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create

REFORM

in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

For Contents see the opposite page.

A fine example of Photographic Printing, by the author, will accompany the work, from negatives by F. Gutekunst, Philada.

PRICE, \$2.50.

BENERMAN & WILSON, Photographic Publishers,
SEVENTH & CHERRY STS., PHILADELPHIA.

The Last New Book!

THE PRACTICAL PRINTER.

A COMPLETE MANUAL OF PHOTOGRAPHIC PRINTING

ON PLAIN AND ALBUMEN PAPER, AND ON PORCELAIN.

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INTRODUCTION.

The Printing Room, with a Plan. The Silvering and Toning Room, with a Plan. The Drying Room, with a Plan.

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Selection of the Porcelain Plates. Cleaning of the Porcelain Plates. Albumenizing the Porcelain Plates. Making the Porcelain Collodion. Coating, Fuming, and Drying the Plates. Porcelain Printing Boards. Placing the Sensitive Plate on the Board for Printing. Printing Vignette Porcelains. Printing Medallion Pcrcelains. Washing the Porcelains. Toning the Porcelain. Fixing the Porcelain. Final Washing of the Porcelain. Drying and Tinting of the Porcelain. Varnishing the Porcelain. Causes of Failures in Porcelain Printing.

Together with nearly 100 Wood Cuts, and an elegant Cabinet Portrait, from negatives by Mr. F. Gutekunst, printed by the author, Mr. Chas. W. Hearn.

It is selling splendidly!

Hundreds already gone!

MAILED POST-PAID ON RECEIPT OF \$2.50, BY ANY DEALER, OR

BENERMAN & WILSON,

PHOTOGRAPHIC PUBLISHERS, Seventh and Cherry Street, Philadelphia.

IMPORTANT TO PHOTOGRAPHERS.

J. A. ANDERSON'S CAMERA BOXES.

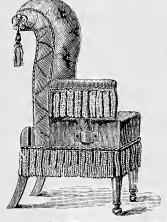
OFFICE OF CHICAGO PHOTOGRAPHIC AND COPYING COMPANY, 320, 322, 324, & 326 State Street.

J. A. Anderson.—Dear Sir:—The 10x12 Conical Bellows Camera you made us gives entire satisfaction. It is finely finished, and the working parts are all complete in their action. We now have seven of your boxes in our operating department and shall discard all others (the so-called "Success") for your make, as we will save the price in repairs. They are all in constant use every day, and stand the test better than any other make we have used. For durability, accuracy, and cheapness, they certainly have no rivals; they compare favorably with the A. O. Co.'s boxes, and are far superior to anything else in the market.

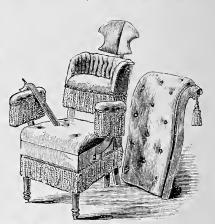
(Signed),

J. A. ANDERSON'S

NEW POSITION AND BABY CHAIR, COMBINED.



THE HANDSOMEST. MOST COMPLETE, AND CHEAPEST



PIECE OF APPARATUS EVER OFFERED TO THE PHOTOGRAPHER.

BUY NO IMITATION.

SEND FOR PRICE LIST.

Photographers can save from 10 to 20 per cent. by sending direct to the manufactory for Apparatus.

TESTIMONIAL.

Elgin, April 5th, 1874.

Mr. J. A. Anderson.—Sir:—The Camera Boxes prove to be all that I expected. The 11x14 is superior to any that I ever used; it is a beauty, and I am proud of it. The cheapness, too, is an item especially with me at this time, having lost all the contents of my gallery by fire. I am obliged to you for your favor.

Yours, G. H. Sherman.

(See other testimonials in special advertisements).

J. A. ANDERSON, (Late Anderson & Bixby), 65 East Indiana Street, Chicago. IN EUROPE, MEDALS HAVE BEEN AWARDED TO THE MAKERS BY ALMOST EVERY COUNTRY.

Lantern Slides!

AND

MAGIC LANTERNS.

We have just received from France,

4000 LANTERN SLIDES!

The Scovill Gold Medal was awarded for the display of these pictures at the N. P. A. Exhibition, 1873.

We can now give photographers and others an opportunity to make selections from them at very low prices.

ANY ENTERPRISING PERSON

Can make money by giving exhibitions to the public.

HOW IT IS DONE.

Local Secretary Hesler, who has just purchased a lot of these elegant slides from us, sends the following:

EVANSTON, ILL., June, 1874.

DEAR SIRS: The transparencies you sent are duly at hand. I must say I am happily disappointed in them, their beauty of selection and perfection of execution are really marvellous. I have shown them to several gentlemen who have traveled over these countries, viz., France, Germany, Switzerland, Egypt, and the Holy Land, and all say that they really get more satisfaction in studying and viewing these pictures, as I show them with Marcy's Sciopticon, than they get in traveling over the same countries. I wonder that more photographers do not possess themselves of a Marcy's Sciopticon, for with these views they can fill in very profitable evenings. I do it thusly: Having the pictures and lantern (Marcy's, which I believe is the best in use), let the people know you have them, and will give Partor Exhibitions at any person's house who wishes to entertain friends. For this purpose you want some few comics; most of these you can easily make of a local character. Make a few transparencies of the babies crying and laughing, leading men, and host and hostess, if possible. Have enough foreign and home views, that you need not always show the same things. For such an entertainment you can get from \$10 to \$20 per night; and this not only pays you but advertises you in the best possible manner. Try it! you who can command your evenings, and, my word for it, you will find it to pay you.

This shows what any one else may do with a good lantern and an assortment of slides.

A Marcy's Sciopticon and one hundred slides can be carried in your hand. We have them ready for delivery the day the order is received.

BENERMAN & WILSON,

Cor. Seventh and Cherry Streets, Philadelphia.

FIGREOTYPERS!

TRY THE NEW CANDIDATE.



10 x 14 1	Eagle	Eggshell,	$\mathrm{per}\ \mathrm{box}$	200	plates,			\$26	00
10×14	44	Glossy,	46	200	"			28	00

A Good Article at a Fair Price!

NO CHARGE FOR BOXING.

ALL DEALERS HAVE THE EAGLE BRAND FOR SALE.





EXAMINE THIS NEW BRAND OF

CAMERA BOXES.

1-4	size,	reversible,	"Square	Dealer,	"						\$7	50
1-2	66	66	44	"							8	00
4-4	44	66	"	"							1 2	00
8-10	"	66	44	"							15	00
1-4	66	"	1-9 to 1-4	and for	ır G	ems o	n a 1	-4 pla	ate, w	ith		
			four 1	-9 tubes	, co	mplet	е, .				21	00





J. BARHYDT,

sin Eliblic line

ROCHESTER.

Philadelphia Photographer.

Vol. XI.

AUGUST, 1874.

No. 128.

Entered according to Act of Congress, in the year 1874, EY BENERMAN & WILSON, In the office of the Librarian of Congress, at Washington, D. C.

THE CHICAGO CONVENTION.

THE Sixth Annual Convention and Exhibition of the National Photographic Association passed off agreeably to programme. Although much interfered with by the fire, it was, taken all in all, a most brilliant success—in some respects eclipsing its predecessors.

The Association thought proper to take the printing of its proceedings into its own hands, and issue the same presently in pamphlet form. Meanwhile we give our readers further on a skeleton report, and refer them to the official one for the details. They will be published for subscribers only.

It is our pleasure, as well as our duty, to speak in the most unequivocal praise of the very handsome manner in which the photographers and stockdealers of Chicago bore the entire expense of the Convention. The treasury will not be asked for one dollar of the costs. On the contrary, Local Secretary Hesler hopes to have a balance to pay into the treasury. This is not only very handsome, but it is unprecedented.

There is no doubt but what the Association is now stronger and in better condition than ever before, and we wish it continued growth and usefulness under its new and talented president and his staff. Long live the National Photographic Association!

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

VIII.

Nor so fast to Rome either, for I went to Milan also, and I must tell you about I entered the city at sunrise, and a sunrise which came up to my expectations of an Italian sunrise, but no more gaudy than many I have seen in my own native land. Milan is a beautiful city, and each year, thanks to the enterprise and good taste and tact of Victor Emanuel, it is yearly becoming more and more beautiful. There are many objects of interest to attract the traveller for a few days. The art museums are very interesting, as they contain some fine old paintings, the Marriage at Cana, by Paul Veronese, the Marriage of the Virgin, by Raphael, &c., &c., and I was so fortunate as to be present at the exhibition of modern paintings, where I saw some exquisite works of art. There are several old churches here which contain some interesting works of art, but they are very tame after one has visited those in Venice and Florence. But at the Church San Maria del Grogie is a picture which thousands visit monthly, the "Last Supper" of Leonardo da Vinci, a fresco old and worn and faded by age, but yet so wondrously impressive that once seen it cannot be forgotten. Photographs of parts or all of this renowned composition could be had in the building, and two or three cameras stood there with negatives exposed, showing that there was a demand for the copies. As I stood there contemplating the picture and thinking of the camera, I almost started at the thought that I saw one of the figures move.

Of the triumphal arches so common in Europe one of the handsomest is the one at the southern terminus of the Simplon Pass, here in Milan, a noble work, erected by Napoleon I, in commemoration of the completion of that magnificent highway.

The Victor Emanuel Gallery is the handsomest arcade in Europe, perhaps, being newly erected, in the form of a Latin cross, and lined with shops, whose display of wares is overwhelming. A dome rises from the centre one hundred and eighty feet high, and twenty-four beautiful statues by famous Italian sculptors adorn it. Photographs are largely sold here, and of unusually good quality for Italy. I always made it a point to patronize the art, and already my collection is growing weighty. Prints are sold mounted or unmounted, as you like, a large stock of each being always kept on hand by the dealers.

But the crowning glory of Milan is its unrivalled eathedral. I first caught a glimpse of it as I rounded a corner in a cab on the way to the hotel, and it was not many minutes after before I was in front of it spellbound by its grandeur. I could not take it. in at once, so I entered, and as service was being held, I walked about among the people. Rich and poor were here in great numbers, and I saw enough genre pictures to make any one forsake the camera and take up the brush and the pallet. No wonder Raphael and Leonardo and Paul Veronese painted as they did, if they had such subjects as these to inspire them-living pictures in profusion. I turned away from the interior to the exterior again. I walked around it, stood at a distance on all sides, and gazed upon it, and I clambered to the highest place accessible in the highest pinnacle. I wandered to and fro among the sculptures upon the roof, and once became lost from my guide, for the roof is like the streets of a city, and one is soon astray unless careful to follow the guide. About

forty-five hundred marble statues are here, varying in size from eighteen inches to fifteen feet in height, scattered here and there over the marble roof, in niches and under arches. The mind becomes bewildered at the sight of them. Even more perplexing are the turrets of purest Gothic style, ninety-eight in number, and the myriads of braces and supports, miles (almost) of which one may look through, are all of white marble. There are hundreds of places yet to fill with statues, and the several marble yards on the roof with their workmen are each year helping to fill the empty niches. To reach the roof we must climb one hundred and ninety-four steps up a winding stairway. Now three hundred more around and around and around on the exterior, and we are at the highest gallery of the highest tower. From there I had a magnificent view of the country around. The Alps! O how beautiful with their snowy peaks; the great arch at the beginning of the Simplon Pass, and the Pass itself for miles along; Mont Rosa, Mont Blanc, Mont Cenis, Great St. Bernard, and many other peaks uncovered lay dozing in the distance; the city of Milan at our feet sent up sounds strange and perplexing from the figures walking in its streets, and far and wide we could see in all directions. But time compelled me to come down, and it was a real journey to terra firma again. No wonder the Milanese claim this as the eighth wonder of the world. Where are the seven that take precedence? The interior is grand and majestic and solemnlooking, but does not compare in beauty with the exterior. It is 477 feet long, 186 feet in breadth, and the nave is 158 feet high by 35 broad. The dome is 214 feet high and the tower 360 feet. Fifty-two pillars, each fifteen feet in diameter, support the roof, and instead of being adorned with eapitals, the summits of all are finished with eanopied niches, in each of which stands a majestic statue. The pavement is mosaic work of variously colored marbles, and well worn in places. The walls are adorned with some pretty monuments and accompanying sculpture. The statue of St. Bartholomew, representing him without his skin, is very strange. The prettiest - work, I think, is the relief, in one of the chapels, representing the Virgin. The stained glass in the three choir windows is the finest I have seen in Europe, I think, and gives us three hundred and fifty representations of scriptural subjects. One could spend a day in the examination of them alone. Another walk all around the tremendous pile and we must leave it. Many old buildings are close to it now, but they are being demolished, to the great advantage of the cathedral, and are to be replaced by a handsome avenue and fine art buildings in honor of King Victor Emanuel.

· If no desire to see the Leaning Tower of Pisa had possessed me, surely in gratitude to Galileo for the wisdom which gave my old and revered grandmother the giant pendulum elock, from whose face I first learned the time of day, I should visit Pisa, and I am glad to say I did. The principal sights there are the Leaning Tower, the Cathedral, the Baptistery, and the Campo Santo, and being all close to each other, one can visit them in a few hours. First to the Cathedral, and at once to the great lamp, which, swinging to and fro in the air, it is said, attracted Galileo as he sat there singing mass, and gave him the idea of the pendulum. It was not so large as I had pictured it in my mind, but there it was, suspended from the ceiling sixty feet above by a rope. I reached it with my umbrella, gave it a push, and then stood and saw it swing to and fro as the great mathematician himself observed it. It was worth going to Pisa for, and that umbrella is to be presented to the Photographic Historical Society-when there is one.

The interior of the Cathedral is very imposing and pretty. The ceiling is richly carved and gilded, and is borne by sixty-eight splendid granite columns. The aisles are vaulted, and above them runs a triforium of fine proportions. There are twelve beautiful altar pieces, said to have been designed by Michael Angelo, all of white marble, and certainly worthy of that great sculptor. A few of the paintings are good, the best being by Andrea del Sarto. The photographs do not do justice to the exterior, which is also very pretty—but, oh, the graceful Leaning Tower eclipses all

else, and far exceeded my expectations. It looks as fresh and white as if just erected, being of beautiful white marble. Its height (151 feet) deceives one, as it looks lower. Its lean-ness equalled my idea of it, being thirteen feet out of perpendicular. It is hollow, eight stories high, and the winding stairway is outside of the great central space. Look down it from the top. The interior resembles an inverted funnel. requires two hundred and ninety-four steps, upward, downward, and around, to reach the top. Nervous people tremble and hug the iron rail when they look down the outside on the lean side from the top. Seven bells, one of which weighs six tons, hang on the upper side of the top story. The view is magnificent, embracing the town, the islands, the sea, the river Arno for miles, the mountains, and Italy far and wide. The Leaning Tower is a joy never to be forgotten, and came up to my dreams of it. Descending we visited the beautiful Baptistery at the rear of the Cathedral. A white marble pulpit there is covered with exquisite bas-reliefs, representing scenes in the life of Christ. The baptismal font is a very large and fine one, too, and baby baptism was going on.

Now to the Campo Santo or burial-ground, which is only a few steps away. This is "holy ground," for fifty-three ship-loads of it were brought from Mt. Calvary. A huge oblong structure surrounds the churchyard, similar to the cloisters of a convent. Here are some of the most superb subjects for the camera in all Italy, and they are so well lighted that one has no difficulty in making delightful pictures of them. The lofty circular arches of the arcades are filled with the richest Gothic tracery. The walls are covered with elaborate frescoes, some of which almost border on the grotesque, but all of which are most interesting with reference to the history of art. The masters who painted them certainly understood human nature, which doubtless then was much as it is now, especially when a guilty conscience preys upon the mind, and fear gets after a man with not only a sharp stick, but a red hot one with many ends. Here are many richly sculptured tombs and beautiful figures, mixed in with a superb collection

of classical antiquities. Altars and basreliefs, and inscriptions and statues, the aceumulations of ages, are gathered here within these walls, and the photographs of the most of them are more beautiful even than the originals, although the negatives are not retouched.

Thirty-five minutes from Pisa is Leghorn or Lagorne, a bright, cleanly, and lively city, with a beautiful harbor, and evidently under good government. It was market day, and we drove through the market-places where the peasantry were dispensing their grapes and figs and pomegranates. The scene was lively and pie-We passed several ancient founturesque. tains, around which groups of water-bearers with their copper vessels were gathered, gossiping and waiting their turn at the fountain. The water at Leghorn is bad, doubtless, for the cows and the goats are driven from door to door, and then milked to order in quantity to suit. Alabaster images and photographs are sold largely there, the one being apt to come to destruction almost as soon as the other, and you may guess which. There are all sorts of churches in Leghorn, for in olden times the different sects who were persecuted at home were welcomed to Leghorn, where they could worship as they do in these blessed United States, according to their own consciences.

Between Leghorn and Rome I had several adventures and a nightmare. Two of the former consisted in fumigations-once in a railway car by a rascally Italian, who would smoke, and whom I froze out; the last in a railway station. The other was caused by the non-digestion of a sour roll and a raw egg. They do not have the comfortable railway restaurants in Italy that we do, and one is often glad to get even very inferior food. The news of the failure of Jay Cooke & Co. had just reached Italy, and I was refused money on my letter of credit, "because all the American bankers are broken," said an Italian broker. I barely had funds to carry me to Rome, and the roll and the egg were all I dared to invest in. I dreamed on them of the difference between the Italian of to-day, and of the Italian of old, as I saw him in marblesix hundred feet of him—at Florence. Great rows of those classic busts seemed to be pedestalled upon my breast and stomach, making all sorts of faces at me, but they were not; it was the roll and the egg.

I awakened before sunrise in time to see the dome of St. Peter's in the far distance.

This and the cities on the hills, cavernous eities in the hills, miles of aqueducts in ruins, and now the muddy Tiber, told me I was nearing Rome, and when I arrived there, after fu-



ming again, my first move was for a good breakfast. And now when I would write you about Rome I am an imbecile indeed.

Many times since I began to place these "Views" on record, have I regretted it, so impossible is it to give any sort of an idea of the beauties I have seen, in so limited a space; and at no time have I felt that regret so deeply as now, when I take up the notes



Seemed pedestalled upon my breast.

I made while at Rome, and attempt to filter therefrom a few of the most useful and interesting items.

To see Rome was the great desire of my

heart from the time I left home, and I hurried at all other places in order to make it; for at Rome is the Vatican collection of pictures and sculpture, unequalled, unsurpassed; and to be among them was my desire. I went, I wandered and wondered, and



Making all sorts of faces.

now I can tell you very little of what I saw. I went straight to the Forum first, where the great columns stand, like spectres, shoulder to shoulder, and the beautiful arches mark the memories of those who creeted them, glory once covered up and now exposed again, and excavation going on. Those eight columns are a part of the Temple of Saturn, creeted 491 B. C. Those three banded together are the remains of the Temple of Vespasian, creeted by

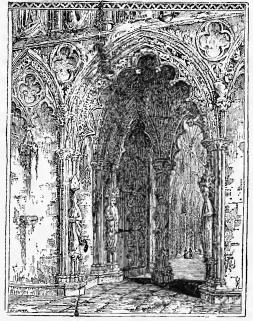
Titus, and across the modern street stands the arch of Septimus Severus. Further on is Trajan's Forum, with its four rows of broken columns, and the great Trajan column, which still stands 158 feet high, 12 feet diameter, and covered with reliefs, which run around it spirally to the top, and includes 2500 human figures, besides thousands of horses, chariots, weapons, &c., the whole making up a grand battle scene. Inside one hundred and eighty-four steps lead to the top. Ah me, what a wondrous Before we knew it we came to the richest of all the arches-a veritable mass of sculpture-that of Constantine, whose reliefs make up another battle picture; and right by it is Rome's glory, the Coliseum. How I was deceived by it. Is this the Coliseum? I said. It is 1900 feet in circum-

ference, 658 feet widest diameter, 202 feet high, took 60,000 Jews ten years to build it, and once seated 87,000 persons, and yet when I first saw it, it looked small. I closed my eyes, and then plunged into it, not halting until I reached the centre of the great oval. I then looked, and all at once its immensity sprang upon me, and the more I clambered among its numberless great arches, and the nearer I approached its top, the more I was impressed with its immensity. Photography has made you very familiar with it. I need not go further. I visited it several times, and each time I saw it, it loomed up higher and higher before

The great St Peter's was no disappointment. I began to have an eye for size, and here are some of the figures concerning it. Its portico is 236 feet long by 42 feet wide, and 62 feet high. Measure that with the church you go to. Now push aside the great leathern curtain that

hangs at the door and come inside. Frightened? No wonder, for here is a stupendous interior, 700 feet long, whose transept is 440 feet high, and the nave 154 feet. Under foot a polished marble floor, which causes your shadow to frighten you at every turn; overhead a golden vault, supported by 784

There are 290 windows, 390 statues, 46 altars, and over and above all, the most wonderful of all domes. There is the bronze St. Peter, whose toe has been kissed away; the splendid altar with its four spiral columns of bronze, the pair of perfect cherubs at the fountain, together with the sculptures, which I dare not name a tithe of. Many visits were made here, but it had to be neglected for the Vatican. There are many other interesting churches in Rome of course, all of which must have cost millions of money, and all of which are museums, on account of the sculpture, paintings, precious marbles, jewels, and relics they contain, to say nothing of their own architectural splendor. Through these halls of architectural glory I wandered delighted and overwhelmed day after day, alone.



Through these halls of architectural glory I wandered.

Many times, good readers, did I wish that you all might have the opportunity to enjoy as did your humble correspondent enjoy. Santa Maria Maggiore, St. John Lateran, the Pantheon, and St. Paul's, are among the most gorgeous. The latter even rivals St. Peter's in beauty. It is one grand hall

of marble, 410 feet long, with an altar of malachite. The roof is supported by 80 Corinthian columns, 4 feet in diameter. You must take 300 steps to go from one end to the other. Its cloisters are most beautiful, and its collection of oil portraits of the popes, &c., a most interesting study.

From the dome of St. Peter's, from the Pincian Hill, and from the top of the old Capitol, the views are superb. One sees the whole seven hills of ancient Rome, the Appian Way, the Tiber almost to the sea, and ruins in all directions, each foot of ground in sight having some historical memory hanging about it. Photography is largely practiced here, and the sales to

Strong, sturdy men-Romans-playing games in the streets.

travellers are immense, and the rooms where photographs are sold are very richly furnished. MacPherson produces very large solar prints of some of the main buildings here, and they have been seen no doubt by the

most of you. Unfortunately they do not last long. I secured carbon prints from Braun. The street scenes in Rome are very interesting, though not so much so as at Venice. The people look more idle and degraded than they do in Northern Italy. It is no uncommon thing to see strong, sturdy men-Romans-playing games in the streets, while the streets themselves are reeking with filth. Why not put them to work? Carriage driving employs a great many of them, for almost every one rides in Rome who can, and the cost is trifling. I preferred to walk one day on a shopping expedition, and a hackman followed me with his carriage for two hours to make twenty cents by taking me back,-

and made money on it! Oh! what a contrast between these people and those of ancient Rome, if I may judge from the busts of the latter, so plentiful in all the collections. Nay, not only from them, but from the works of those people of old themselves. Think of the Romans of to-day erecting a Coliseum, or a Pantheon, or a St. Peter's, or a Trajan's column. They hardly carry themselves erect.

Up the Scala Regia, the finest stairway in the world, all of the finest white marble, and I am in the Vatican Museum. Vain would it be to try to tell you of a tithe of the things to be seen and learned there. Now in the galleries of sculpture 500 feet long, or in the library, where one may walk 900 feet without a turn, or again among the myriads of pictures, where are many artists copying the works of the old masters, or in the chambers of the antique, among shattered columns and mummies and mosaics. The

walls and the ceilings are covered with the most glorious compositions, surely painted by men whose natures differed from the matter-of-fact men of to-day, and in the richest of colors, and tints as fresh-looking

now as the day they were painted. I soon saw there was a year's work here; so I selected here and there a picture, and in turn studied and pored over them ugain and again. The largest collection of the works of Raphael is here, and no wonder the Pope wept when Raphael died. His "Transfiguration" is the most sublime composition. There is so very much more feeling depicted in his figures than one ever thinks man able to express even in his living body, that it makes the works of this great master so very fascinating. His Madonna of Foligno is also another grand work which one can never forget. Of the statuary the Apollo Belvidere is of course the gem. It fairly startles one with its look of life, and nothing but the whiteness of the marble can convince one that it does not breathe.

I turned from all these great works for awhile to visit the Sixtine Chapel adjoining the Vatican, and I had it almost alone. No jabbering guides, no noisy traveller to disturb the pleasure of contemplating these great works of Michael Angelo. On the ceiling was his great fresco, the "Preparation of the World for the Advent of Christ " In the centre are the "Creation," "Fall," and "Deluge," with the "Sacrifice and Mockery of Noah." Then prophets, sibyls, angels, figures, reliefs, medallions, &c., and the following representations: 1. God the Father Separates Light from Darkness; 2. Creation of the Sun and Moon; 3. Separation of the Land and Sea; 4. Adam Inspired with Life; 5. The Creation of Eve; 6. The Fall and Banishment from Paradise; 7. Noah's Thank-offering after the Deluge; 8. The Deluge; 9. Noah's Intoxication, &c.; and in addition twelve other large groups of equal splendor, and all so grandly natural that the scenes themselves appear almost as if they were real. On the wall of the altar end of the chapel is the famous fresco by the same great master, the "Last Judgment," 50 feet high and 64 feet wide, containing over three hundred figures larger than life. One's blood curdles at the sight. No wonder the artist himself fled from it repeatedly while painting it.

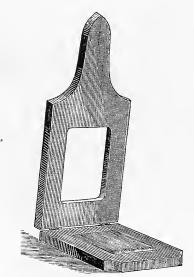
But I will stop. Ever since I began this I have felt the utter folly of attempting to describe here anything of what I saw.

Whole volumes have been devoted to that work, which are accessible to all. What I may do some day is to return to these glorious sights, and tell you some of the lessons I learned from them.

The Enamelled Cameo Souvenir or Glace Portrait Process.

BY E. D. ORMSBY.

TAKE a piece of clear glass, free from bubbles or scratches, and clean by immersing in a solution of concentrated potash over night. Wash thoroughly in clean water, and immerse for a few minutes in a mixture of nitric acid and water, one part of acid to three of water; let dry from the acid without washing. Now coat your plate with the following: plain collodion, one ounce; glycerin, one-half drachm, and let dry. Then take sheet gelatin and soak it in cold water until it is soft, then put it in a cream pitcher, or a wide-mouth bottle, and cover with water; dissolve the gelatin by heat, immerse your print in this warm gelatin, and lay it face downward on the collodionized plate, carefully pressing out



all air-bubbles; now cement with gelatin a piece of thin Bristol board, previously dampened to make it pliable, to the back of your print, let dry thoroughly, and loosen

the edges with a knife-blade, by running around the glass between the print and glass, when the whole thing will leave the glass with a very superior polish; it is now ready for pressing in Ormsby's cameo press, the simplest, most practical, and cheapest cameo press ever invented Any carpenter will make one for about three dollars. The press and process are free for the use of the fraternity. This process is superior to any. Where rubber is used in the collodion, they will never crack in pressing, and where the rubber gives less polish than collodion alone, the addition of glycerin gives an extra polish. I inclose you a photograph of my press. It is made of maple wood, three-quarter inches thick. The raised centre for moulding is glued on. It is so simple the photograph explains it. The top and bottom are hinged together. My press and process have the indorsement of the Chicago Photographic Society.

309 West Madison Street, Chicago.

Albumen Chlorobromide Process.*

BY M. CAREY LEA.

It has been objected to the various forms of the emulsion process, that it is inconvenient to be obliged to use the emulsion within a certain limit of hours after it is mixed. If kept beyond that time, inferior results are obtained.

It occurred to me that the new process which I have lately described, and sent a brief sketch of to the last meeting of the Photographic Society, that in which the plate is plunged direct into a bath of albumen, and other agents, as soon as set, differed so much in its characteristics from the older processes, that possibly this difficulty as to the keeping of the emulsion might not exist. So far I have been able to make but a single experiment in this direction, but the result was very curious and satisfactory.

Having on one occasion a small quantity of emulsion over, after coating a batch of plates, I set it aside, and subsequently eoated a plate with it. Nineteen days had elapsed between the mixing of the emulsion and the eoating of this plate with it. It lay aside for about two weeks, and was then exposed and developed. I inclose a print from this negative. The print does not do justice to the negative, which requires deeper printing, but at this moment I have not a really good print at hand. It will serve to show, however, that the negative is an excellent one.

Of course a principle cannot be established upon a single trial. That the first (and only) trial made should be a complete success, certainly argues very favorably, and it seems highly probable that in the case of my new process, the emulsion without any special preparation can be kept for a considerable time without prejudice to the result.

The emulsion was made as follows:

 Cadmium Bromide (dry),
 . 6½ grs. to oz.

 Ammonium Bromide,
 . 1½ " "

 Cobalt Chloride,
 . 1 " "

 Potassium Nitrite,
 . 1 " "

 Aqua Regia,
 . 2 drops to oz.

Sensitized with silver nitrate, twenty-five grains to the ounce. Preservative bath, gallic acid with tannin and albumen as already described.

This plate was as sensitive as those made with freshly prepared emulsion. It was tested against one, and found to be in no respect inferior.

RAMBLING REMARKS.

BY JOHN L. GIHON.

I WELL remember that when a child, playing with others of the same age near our school, our party was one day surprised by the somewhat sudden appearance in our midst of an oddly apparelled elderly woman. We instinctively knew her to be a "Gypsy," and would have shrunk away, had not the gentleness of her voice and evident harmlessness of intention dissipated our fears. Although she had a kind word for each, she singled me out, and drawing me towards her, bade me give her my hand.

Then, in true dramatic style, she scanned

^{*} Read at the June meeting of the Photographic Society of Philadelphia.

the many lines that are curiously enough engraven upon its palm, and she told me that my life would be full of fortunes and of misadventures. She traced crossing upon crossing, giving to each some peculiar name, and finally, when with a pitying look she passed me aside with a blessing, she again told me that my career would be as varied as the map which she had been studying. She may have been no prophetess, but thus far events certainly justify me in giving her the credit of having been a remarkably good guesser. I merely mention the incident from the fact that my photographic experience has been equally as singular as has been that of my social existence. If there is a peculiarly exceptionable task to undertake, at all attainable by photography, it seems my lot to fall into it, and the consequence is, that in the prosecution of the art I have found myself in some very queer places, attended by all sorts of circumstances. Even here the fatality attends me, and I might stretch out many a chapter of more than passing interest.

A commission, the fulfilment of which I undertook the other day, nearly terminated on my part in a "coup de soleil," for although I am now writing in January, the sun in these latitudes pours down his warmest rays, and as the adventure was of a marinal character, a good deal of sailing was necessary to reach and to return from the object of interest. The latter was a vessel that had lately been towed into port by one of the large steamers trading here. When found drifting with the current along the coast, her interior was a mass of smouldering fire, but her hull, being of metal, merely glowed as only red-hot iron can. Speculation was rife as to what had become of the officers and crew, until they made their appearance in the city, after having trudged through many a weary league of sand. They told of the fire which suddenly burst upon them, of their well-grounded fears of the explosion which they knew must follow (powder being aboard), of their abandonment of the vessel, of their precarious search for land, and of their after hardships. They were surprised to find that the remnants of their once beautiful craft had arrived in advance, and now began a disputation as to who they should revert to. Again, the underwriters in London had to be satisfied as to the condition of the wreek. A rational man suggested that as to the latter, a *photograph* of the interior would be the best report that could possibly be devised. Thus our connection with the affair commenced.

I have worked under difficulties many a time, but have never yet encountered greater ones than this offered. The captain must have been a practical joker, for he assured me that I would suffer no inconvenience, that there was plenty of fresh water on board, and several state-rooms sufficiently dark for manipulation. As he professed to have been an amateur photographer, I had confidence in his statements, and to my after disgust abided by them.

Starting off in one of the little sail-boats that constantly hover about the moles, we soon get upon the bosom of the harbor, and as the wind freshens, ship just enough of the sea to completely drench all of the luggage.

You know what the result will be-swelled apparatus, and chloride of silver wherever the nitrate has been. At last we reach the seared and disabled ship, and find no way of getting on board. A grapnel, however, skilfully thrown, attaches itself to the bulwarks, and gives us a chance to clamber up and over the sides, where we find no deck to stand upon. An immense shell filled with débris, with twisted beams, with immense links of chain, rusted anchors, broken machinery, sections of tubular masts, knotted coils of wire rope, all this and more similar in character, make up the scene we are to represent. Nothing daunted, ingenuity has to be taxed to get the traps on board, and to establish a place for them.

It needs no scrutiny to establish the irony of the captain's remarks concerning the rooms. There remains to us the necessity for working, and there looms upon us the fact that there is no place for the purpose. Hesitation is useless, and as all that remains about us is of iron, we proceed to make use of it and actually build a darkroom, or rather kennel, out of great sheets, which have to be lugged from various parts of the piled-up rubbish. Of course it is not

light-tight, so we strip off coats and vests, and all that decency will allow, and cover over cracks, fill up corners, and succeed in having created a stifling, nasty, dirty hole, into which we have to crawl, and out of which we return thanks for the privilege of getting. And now for the water! To be sure there is plenty around us, but it is as the old poem reminds us, "Water, water everywhere, but not a drop to drink," and as we revise it, not a drop with which to wash. Diligent search though reveals the tops of iron tanks amidst the chaos, and in the bottom of them we discover sufficient if we can get it. More impromptu mechanical devices come to our aid, and we finally commence work. It would be tedious to recapitulate the obstacles that obtrude themselves at every step, but they can be imagined when I explain that we were working 14 by 17 inch plates; that there was a heavy wind blowing; that the vessel itself had some motion; that there was no proper support for the camera, and that it would be impossible to suggest any one point that a photographer could look upon as conducive to either comfort or convenience. cessful negative ultimately crowning our efforts, must be looked upon as the gaining of a genuine triumph.

In strong contrast to the above were the incidents connected with a picture-making excursion that we undertook not long since, in fact upon that which is here known as "All Souls' Day." Then we had no reason to complain of an insufficiency of darkness where we conducted our chemical work, for we were, literally, "down amongst the dead men." For a room, we improvised a niche in one of the galleries beneath the mansoleum or chapel in the midst of the Spanish cemetery. Here daylight never enters, and although floor, walls, and ceilings alike are of white marble, we can splatter silver with impunity, and feel assured that no action of light will ever affect it. It was a strange and weird-like place in which to work; and as we groped around, assisted only by the glimmer of a candle that seemed to make the surrounding obscurity more intense, I have no doubt that we in turn presented a study of light and shade much more picturesque to the observer than the scene was pleasant to ourselves. We knew that all of these labyrinthine galleries contained scores of dead; and as the walls repeated hollow echoes, each one different in tone, but all in imitation of the noises made by our every motion, it required no great imagination to fancy that the stark occupants about us were mocking our work. What a relief it was to rush into the open air with our plate, and linger in the sunshine over our work outside. We had been commissioned by several parties to make views of the restingplaces of their departed ones, and this day was selected on account of the extraordinary and beautiful appearance the cemetery then presents.

There is an annual decoration upon this anniversary, and the entire population become visitors. From dawn until dusk a continuous swarm of human beings pass to and fro under the heavy archways, and throng the grounds. The groups of people present every variety of character, every condition of life, and every phase of sentiment, There is a curious mixture of the holiday spirit, tinctured with a certain pervading disposition to sadness. From the belfry there peals out upon the air a constant and mournful tolling that at once affects the mind. Don't look up though, for if you do the illusion is at once dispelled by your observing that the ropes are pulled and the hammers worked by a crowd of youngsters, who are anything hut reverential in performing their duties.

The place itself is beautifully situated upon the slope of a hill that extends down to the water's edge. It is divided into three distinct areas, each one of which must be intended for different grades of society. The elegance of the first one is in strong contrast to the poverty-stricken appearance of the last, where sticks and numbers planted thickly, even upon the gravel-walks, indicate how crowded the ground must be with worn-out humanity. Each space is surrounded by a very high wall that appears wondrously thick. It is but a honeycomb, however; that is, it is made up of a vast number of cells or vaults, panelled in front. Every one of these cells is a depository for the dead, and the panels become suitable places for inscribing the names of the deceased. Upon these, too, are hung the decorations, the tributes of love and respect, that when once placed here, are allowed to remain until wind and weather destroy them. For weeks previous to the day, the store windows are filled with these offerings, and I can assure you that much taste and money are expended on their preparation.

Black and white beads strung on wires, fashioned into intricate patterns, twined around with ribbons, surmounted by appropriate mottoes and encircling centre pieces, such as pietures or plaster casts of scriptural subjects, form the main features of these emblems. The cross, urn, and wreath are of course favorite shapes. The walls spoken of are absolutely covered with them. Oceasionally a plate glass front replaces the marble panel. Behind it you will then see these same decorations accompanied with pyramids of flowers, lighted wax candles, and occasionally a picture of the departed loved one. We finished some fine photographs and porcelains for this very purpose. The entire custom is, after all, a pretty one, and entirely commendable, proving, as it does, that those who have gone before are remembered, at the least, once a year.

(To be continued.)

Class in Landscape Photography.

As the season for field work is upon us, and fast passing, we will dwell no more on formulæ, but pass to active outdoor work, which will no doubt be most interesting to the class.

All landscape workers are willing always to dispense with all superfluous apparatus, and any method of working by which the amount of trappings can be reduced will be hailed with satisfaction. Dry plates are the most convenient in this respect, but the amount of practice required by most of the dry processes, to work them successfully, renders them impracticable for any but experienced workers. We shall, therefore, adhere for the present, to wet plates, with such modifications of working as shall seem to promise the greatest success. The eminent photographer, Mr. J. W. Black, of Boston, to whose article in Mosaics for 1874,

we have already referred, says further: " I use nothing to preserve my plates, neither do I wash them with water, but simply expose them, develop them with the usual iron developer, consisting of nothing but iron, water, and acetic acid, in proper proportions. After development, which I allow to go as long as it will (the time being right), I then drain and put into a grooved box, the plates face to face, near together, a bit of wet paper on the top. They will keep for twenty-four hours in this way, and then may be taken to the rooms, washed and redeveloped, or not, as they require. If I wish to keep them a week or more in this condition, I can do so, and they may be kept so perfectly well. I simply put a little ball of paper between the four corners of the front glasses, and put them face to ' face, and a wet paper around the edges. They will keep any length of time, and redevelop or fix just as well as at the first moment of taking. Remember, no washing, no preservation of any kind. This I have practiced for five years with success." This is Mr. Black's method of working with his acid bath; whether it would do as well with any bath could soon be demonstrated by experiment. The advantages of such a method are very obvious, and we think it well worth practicing.

We have also another in the same direction which we give, by Mr. W. T. Wilkinson, an English photographer. In reference to his landscape work he says: "There is nothing new about the method until the negative is developed, when, instead of, as usual, washing the developer away, its further action is stopped by flooding the plate with a little of a mixture of acetic acid and water. This is allowed to permeate the film; the plate is then drained slightly and put into a metal box, to be finished at leisure, which may be done in an hour or a week. By the foregoing, it will be noticed that not a drop of water for washing is required. This has many advantages, amongst which are these: water has not to be sought before a picture can be attempted, nor has it to be carried into localities where none is. Many fine views have been abandoned because either the operator had finished all his water, or none was to be had handy. The advantages of not taking intensifier and fixer as well as water, are not all the benefits arising, but the negatives are more likely to be first-rate, as at home more time can be given to the task of intensifying, which has then a better chance of being properly done, than when done in the field, in the hurry of work, when a deal of work is tried to be done in a little time."

With these good practical suggestions, as to working the chemicals, we have a few hints of a little different nature, from Linn's "Lookout Landscape Photography," on taking the field:

"Having chosen the spot, pitch your tent in a cool, shady place, as convenient to the location of your camera as possible.

" Put things in order for operating. Go to work with coolness, deliberation, and confidence. Throw off all care, constraint, and nervousness. Woo dame Nature in her mildest and happiest mood. Let your soul be inspired and your senses charmed by her matchless beauties. Take your time to it. Strive lovingly, perseveringly, intelligently, and that measure of success which crowns the true artist will gladden your heart at last. Let every weary careworn operator take a new lease of life, by making a campaign in the woods and mountains. Emancipate yourself from the routine of the gallery, and the baneful odors of the chemical room, for communion with nature and the health-giving breezes of heaven. Do not waste your time or material in operating on a windy day; you will have ill success when every leaf and branch is swaying in the wind. Learn to let well enough alone, in the condition of your bath and chemicals, but never work with them out of order."

ART STUDIES FOR ALL.

Χ.

ACCESSORIES.

73. In no direction, probably, have photographers erred so much as in the use of accessories; and yet there is scarcely any pictorial subject that does not require the expression and character obtained by the introduction of some accessory.

74. Nothing has so bad an effect as a picture crowded with accessories that have no connection with the principal subject. Many good artists run to excess in this direction, and all rules of art and good taste have been so outraged by the great mass that have used accessories indiscriminately, without regard to fitness or effect, that the demand for pictures of this style has almost entirely ceased, and the bust picture, with but little more than the head and shoulders, has become most in vogue.

75. It is not to be understood, however, that accessories consist only in the objects that may be placed in the picture independent of the subject, such as chairs, tables, columns, &c.; but the drapery that may compose the costume is an important accessory, requiring taste and skill in its arrangement.

76. It is universally allowed that Raffaelle excelled all other painters in a graceful arrangement of drapery, and a natural disposition of the folds. By studying the principles of the ancients he learned to consider the figure as the principal part, and that drapery should be regarded as an accessory; that it is intended to cover, and not to conceal; that it is employed not from caprice, but from necessity; consequently, the dress should not be so narrow as to constrain the members, nor so ample as to conceal them, but suitably adapted to the size and attitude of the figures represented.

77. The photographic artist has his drapery under his control quite as much as the painter, and there is nothing in connection with composition that requires more careful study and a closer observance of nature than the disposition of draperies. Even in the simple bust picture, where there is so little to display, its effect is wonderful in giving a proper balance to the lines and contributing to the unity of the whole. But how much more important is it in a full-length figure, where its flowing lines and graceful folds may be made to not only give support and symmetry to the subject, but breadth and force to the whole, by a proper distribution of light and shade.

78. Variety in the use of accessories is a necessity that stimulates study and invention. Nature never repeats herself even in

two sides of a leaf. Such precision belongs only to machine work; and in studying nature we learn that variety is no less necessary to a pleasing composition than unity. It is the want of this that has compelled so limited a use of accessories at the present time. The incongruity of photographing · lawyers, statesmen, artists, farmers, preachers, ladies, and babies, all with the same surroundings, became too monotonous to be tolerated, and those who could not remedy the evil and retain the style, have done well to substitute a style that was quite sure to give the variety that nature furnishes in the ever-varying phases of human forms and features.

79. A judicious use of accessories requires that they should correspond with the character of the subject. If it is light and gay, a much greater variety of objects may be admitted than if it is grave and majestic. By multiplying objects a greater variety is obtained in line, and light and shade, which contributes to gayety. A variety of objects is inconsistent with the simplicity so essential to the grand style. The best works of art, those that are the most pleasing, the most enduring, and produce the most forcible impression, are always characterized by simplicity. In pictures of this character, variety must be considered with reference to that undivided attention which a great subject demands.

80. In the use of accessories proportion is an important consideration. It is requisite in everything intended to please the eye. In works of art it refers first to size; next to the degree of light and shade; and again, to the force of expression required in the character of the scene represented. Any work is in good proportion if its details are neither too large nor too small when viewed in relation to the whole or to each other. For example: if a man be surrounded with furniture the proper size for a child, he would be made to look like a giant; while, on the other hand, immense secretaries and mammoth chairs dwarf the subject, giving it an air of weakness and inferiority.

81. Harmony is an important element in a composition. There must be harmony of line, harmony of grouping, harmony of light and shade, harmony of expression. Each part must be so adapted as to correspond with the rest. The attitude must be in keeping with the expression; and the accessories must be true, both to the character and the age represented. A harmonious whole is always more or less pleasing in itself, independent of subject or style.

82. Lastly, breadth is essential to harmony. According to Allston, "by breadth is meant such a massing of the quantities, whether by color, light, or shadow, as shall enable the eye to pass, without obstruction and by easy transitions, from one part to another, so that it shall appear to take in the whole at a glance." To this unity is essential. When the objects introduced in a composition are multiplied, scattered, and divided, the eye, in searching for the principal object of interest, becomes wearied and perplexed, and the picture is then said to want repose. Unity, however, is distinct from harmony, and requires one point of view, one focus of light, one prominent character or group, one leading idea. There may be unity of parts when harmony in the whole is entirely wanting. Accessories, then, should only be used as such, and correspond with the subject, that the eye will be led involuntarily to the principal figure, while all else remains subordinate and dependent.

Medallion Mask for Ferrotypes.

A CORRESPONDENT communicates his method of making the above as follows:

I first had made a frame, 30 by 40 inches, of strips half an inch thick by two inches wide; then I got a piece of building-paper, tacked it to the frame, and trimmed it around so that it was the same size. Now lay the frame on the floor, and get the centre by laying a straight-edge across from corner to corner each way. Make a pencilmark, and you have a \times in the centre; now measure from the \times the longest way of the frame, $7\frac{1}{4}$ inches each way, and drive a nail through into the floor like this; now

take a string and pass around one nail, carry it by the other one, and tie it just $3\frac{1}{4}$ inches beyond, then take



a pencil, put it inside the string, mark around, and you have an oval 16 by 21½; take a sharp penknife and cut it out carefully, then get a piece of bleached muslin, and paste it on smooth, cut it in the centre, and paste it on the opposite side, turn the cloth in and put it down smooth. Now get four pieces, six feet long by two inches



wide, hinge them at the top, mount your frame, and you are fixed for making Medallion Ferrotypes. The paper will warp when you paste on the cloth, but never

mind, it will be all right when dry.

C. N. STEVENS.

PROPHETSTOWN, ILL.

BATHS, ETC.

BY W. H. POTTER.

Having cut loose from portrait photography, and launched into landscape photography, I commenced my operations this season in a campaign against the two Virginias. Of course, I have done considerable outdoor work, which led me to take this step, but heretofore it has been more for recreation and personal pleasure, with a fair portrait business to back me; now it will be to a certain degree, a question of bread and butter, combined with the charms of nature; not a very happy combination, but certain to exist in some form.

I shall not describe my wagon until it is completed, when you may expect a photograph of it, and a full description. It is to cost \$350, and has been thought, dreamed, and agonized over for six months back.

As to my baths, I make three large ones, two iodized almost up to that point where it ceases to be a virtue, and the other left plain, but all as pure as ice-water, sunning, decanting, and filtering can make them. The bath-tub is filled about two-thirds full. Whenever the bath gives signs of the presence of too much iodide, give it a small dose of the plain bath, not too much. The bath works best very near the turning-point or excess of iodide. The plain solution also decreases the quantity of alcohol and ether

to the amount of solution. You can keep on adding, from time to time, plain solution till you get your tub full, and it saves a great deal of time when dame Nature is balmy, sunny, beautiful, and calmly submits to that tide of success "which, taken at the flood," brings forth such negatives that make your heart throb for more room. Also, the plain solution is ready for redeveloping solutions for instantaneous negatives, &c.

Never take the iodide out of your bath. It is only a waste of silver, profitable to no one but the refiner. As long as you keep or bring your bath up to the original quantity and strength, you will not have pinholes from too much iodide. Prove it by purifying or freeing your bath of alcohol, ether, and dirt, and by adding silver and water, and bring it up to the original quantity. If eighty-ounce solution at forty grains is reduced by dirty plates to sixtyounce solution, you may expect pinholes. Reduce your vital force from eighty degrees to sixty by letting off your blood, and I presume you would feel funny too. You eat three meals a day, and you should at least give your bath a supper.

Another tight-top bath is used to clear up negatives. Solar negatives should be fixed immediately to secure all the delicacy possible. By fixing and varnishing good negatives on the spot, you shall not have cause to regret afterwards that you possessed so much common sense. Those gentlemen who rush through the country making fifteen or twenty negatives a day, must retire sooner or later before the men who make three or four faultless ones. The demand now is not quantity but quality. scape photography is behindhand in prices, and something more, is in the mud. But there is a place of honor and profit for it, as well as the one already reached by portrait photography.

Another tub is filled with acid. After you have selected two of the best, not passable negatives of any one subject, rub the film off of the rest, put them in the acid a moment and wash them, and if time is not precious, albumenize. By keeping your plates out of the dirt, cleaning off, and using the acid, &c., they are always ready to be

used over and over without risk, and in the long run you save time; for what is more mortifying, when the light, &c., is just right, to find that you have exposed a dirty plate?

Make at least two good negatives of the same subject. If it is not worth two negatives, don't make one, as there is no fortune or fame in it. Aim high, you will come far enough short then; and if so, where will the indifferent or "Tinkering Jim" appear? The crown is for that man who patiently toils till he reaches the top of the ladder. What is the cometor meteor compared with the constancy of the sun? Resolve, if God gives you life and health, that you will reach the high prize you have fixed your eyes upon. Don't take into consideration failure and disappointment; they are only your drillmasters. They are only mistakes to be rectified by experience.

In my next, the four kinds of collodion used in my operations, the developer, and what I saw on the Kanawha, &c., will receive attention.

MANSFIELD, OHIO.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

I HAVE now in hand a work which I purpose to publish in my journal, because I believe it to be of high practical utility; it consists of articles upon the special hygiene of photographers, from the pen of a highly experienced doctor, Mr. Henri Napias, physician to the Mutual Relief Society of Photographic Employés. In order to make them known to you I will extract some of the most important points, those from which your readers can derive interest and profit. The profession of photography presents, like, and more than many others, its inconveniences and its dangers. If those who engage in it are generally better educated than the workmen in other branches; if the wages which they draw from their work are ordinarily rather high, and consequently sufficiently remunerative; if by these two causes they escape the baneful morbid influences resulting from physical and mental suffering, nevertheless they are exposed to a certain number of deleterious influences due to the atmosphere in which they live, and to the daily manipulation of poisonous For example, the chemical substances. air of the laboratories is impregnated with the vapors of alcohol and ether, which act more or less energetically. Even in the case of those who have acquired a habit of breathing them, they sometimes provoke vertigo, vomiting, and especially violent headaches, resulting in a tendency to bronchitis, inflammation of the lungs, and congestion of the brain. In order to escape from the effects of these vapors, the photographer should avoid above all the abuse of alcoholic liquors, which increases them considerably. Dr. Napias advises operators to take after their work a long walk in the open air. He also advises them to drink preferably acidulated beverages, such as lemonade, Seltzer water, &c. He thinks that they could also measurably counteract the effects of the ether by taking morning and night a wineglassful of wine of cinchona. In case the headaches should continue, he recommends the taking of a few drops of ammonia and a few drops of vinegar in a tumbler of sweetened water.

As to the chemicals passed in review by Dr. Napias in his work, there is one, the cyanide of potassium, that he would like to see rigorously excluded from every atelier. The picture that he draws of its effects is frightful. The rapidity with which they are produced is something terrible, and he would like all photographers who use this dangerous substance always to have within reach liquid chlorine (water saturated with chlorine at the ordinary temperature), of which, at the first symptoms of poisoning, they should take two or three drops in a glass of water, without losing time to add the sugar. The person should then lie down with bottles of hot water placed at his feet and along his body, and the windows should be opened to allow as much air as possible to enter. Then be should take ten drops of laudanum in a cup of coffee or tea containing a little brandy or rum. This drink should be renewed three or four times in the space of from one to two hours.

When the symptoms are more serious it is necessary, besides, to make the patient inhale liquid chlorine, and drink every five minutes a teaspoonful of a potion composed of 5 grammes (77 grains) of liquid chlorine, 2 grammes (31 grains) of chlorohydrate of ammonia, and 250 grammes (8½ fluid ounces) of sweetened water.

In poisoning produced by the nitrate of silver the remedy prescribed by Dr Napias consists in taking a glass of water highly salted with chloride of sodium (common salt).

Those operators who frequently handle bichromate of potash are liable to frequent colds in the head and to inflammation of the mucous membrane, which may produce fistulous perforations. It is, therefore, necessary after work to wash the hands, the face, and even the nostrils. In case that any of this salt should have been taken inwardly, it would be necessary to take immediately some lime-water, mixed with milk or albumen, and to actively rub the legs and the arms with alcohol and ammonia, 5 grammes (77 grains) of ammonia for 100 grammes (3\frac{4}{10} fluid ounces) of alcohol.

Dr. Napias proposes to pass successively in reviewall the causes which can affect the health of photographers, and to point out the method of treatment to be employed to successfully resist them.

In 1869 Mr Ducos du Hauron made known a process of which he was the inventor, and by means of which he obtained colored prints. This process was based upon the fact that red, yellow, and blue, mixed in different proportions, give all the known shades. The author decomposed into three images (one red, another yellow, and the third blue), by means of three different mediums, the image received in the camera; he then reproduced each one of these negatives with its elementary color, and finally he blended these three monochrome paintings into a single one, which gave a polychrome reproduction of the subject. The practical method consists: 1st. In obtaining three negatives of the same subject, the first by the interposition of a green glass, the second through a violet-tinted glass, and the third by means of an orangetinted glass. 2d. In obtaining by carbon photography, or any other similar process, a red positive print by means of the first negative, a yellow one with the second, and

a blue one with the third; these three images incorporated constitute the final polychrome image. The results thus obtained, although very curious, left much to be desired, and the great length of the pose necessary for the obtaining of the images in the camera formed by the orange-tinted and yellow glasses rendered the process almost impracticable. But recent experiments published by Dr. Vogel have enabled Mr. Ducos du Hauron to modify his preparations, and to considerably improve his process. To-day the modus operandi published by the persevering investigator may be summed up as follows: For each of the three negatives which he has to make he uses a collodion composed of 4 parts of iodide for 1 part of bromide, and he adds 4 decigrammes (6 grains) of red coralline soluble in alcohol, for 100 cubic centimetres $(3\frac{4}{10})$ fluid ounces) of this collodion. He sensitizes in the ordinary manner, and develops with iron or pyrogallic acid, and fixes the image. He then covers it with a varnish composed

to prevent the collodion from drying. When the plate is dry he removes the red color due to the coralline, by passing over it alcohol at 36°, which, moreover, has the advantage of solidifying the image by coagulating the albumen; he ends by the application of a shellac varnish.

To obtain three negatives of perfect sharpness and of the same size, each one of the colored glasses used in their production should be placed in the camera, quite close to the sensitized surface. As to the monochrome positives they may be obtained either by one of the methods of printing with fatty inks recently perfected, or by the processes of Woodbury, Albert, or Edwards, or especially by the mode of printing derived from carbon photography, so skilfully utilized by Mr. Leon Vidal for his polychromatic prints.

I have not yet received specimens made by Mr. Ducos du Hauron's process, and I therefore cannot say if the results that he obtains surpass those that Mr. Leon Vidal readily produces, and some of which may now be seen in the Photographic Exposition at the Palace of Industry. These last show considerable progress, and upon examination there can be no doubt of the future reserved to the ingenious method due to the eminent founder of the Photographic Society of Marseilles; even at the present time his polychromatic prints rival the finest productions of chromolithography.

Since I have spoken of the Photographic Exposition I will say that it is far superior to all those that have preceded it. Among the frames displayed in it there are very few that do not contain specimens that are entirely new, of important improvements, or of recent and ingenious applications. Among the novelties the splendid prints obtained by the new method of enlargement, retouching, and printing, designated by the name of Lambertypie, attract particular attention. Here again there is progress, not only because of the beauty of execution, but also on account of the facility and the rapidity of the operations. It is precisely in this double aspect that are manifested the innovations to which the present Exposition owes all its interest. I will again refer to this Exposition when entirely completed, and when the catalogue shall have been published.

The process called Lambertypie causes here genuine enthusiasm, and our principal portraitists, Reutlinger at the head, have hastened to procure licenses so as to make use of it at their pleasure. The neo-oliopainting, of which I recently sent you a specimen, meets with a no less favorable reception, specially in the provincial towns.

We expect shortly to have another novelty in a different line, but this one comes to us from America. I allude to the rolling burnisher, which has just been introduced here. I have seen it in operation, and I am certain that in France it will meet with very great success.*

The reproduction of the principal paintings composing the salon of 1874, now opened in the Palace of Industry, is about

being published. Messrs. Goupil, Ferrier, and Lecadre, Marville & Michelez, who make a specialty of this line, have worked with more than accustomed ardor. But the copies made in the atelier Goupil, under the direction of Mr. Rousselon, have the advantage of being printed by the Woodbury process, or of being transformed into heliographic prints. Here is again important progress.

The Sixth Annual Convention and Exhibition of the N. P. A.

THE Convention and Exhibition of the National Photographic Association for the year 1874, being the sixth of that useful institution, is now among the things of the past. All things considered, it was a grand success, and much good will result from it.

Among other matters passed at the Convention, was a resolution that instead of trusting to the magazines to publish the proceedings, that the Association itself publish them in pamphlet form, and sell copies to subscribers at cost. This leaves us to make up our own report, which follows in the shape of a brief synopsis of all that transpired worth mentioning. For a full report of all the addresses, lectures, debates, talks, reports of committees, resolutions, &c., we refer our readers to the official publication, and hope they will subscribe liberally for copies.

We arrived upon the scene several days before the opening, and found the photographic fraternity of Chicago all absorbed in their preparations for the great event. Local Secretary Hesler was busied superintending the erection of "space" for the exhibition of the pictures and of merchandise, and the decoration of the splendid exhibition halls. His assistants were busied receiving cases of goods in great numbers from all directions, and the scene was a most animated one.

We visited several galleries, and found the work of preparation going on with like vigor. The stockdealers too were vying with each other to see who could make the best appearance, in order to attract the visiting photographers. Messrs. Rice &

^{*} We are told that Mr. Entrekin received orders from France for his unrivalled Enameller some time ago.—ED.

Thompson's already attractive store was put in prime order, and a large banner displayed bearing upon its face, "Photographers, we welcome you." Messrs. N. C. Thayer & Co. made their display in their new rooms opposite. Messrs. J. P. Beard & Co. took their stand with the rest, and their store was a great resort. Mr. C. W. Stevens, at the "Great Central," certainly made the most attractive display. Floating over his store a huge American flag attracted attention, and the front of the store was literally alive with all sizes of "stars and stripes" and banners. Up-stairs was the headquarters of the Chicago Photographic Association, and a register was placed there for visitors. Mr. Stevens and his able assistant, Mr. G. A. Douglass, were untiring in their attentions to visitors-and so seemed the whole fraternity-bound to give every visitor as good a time as they knew how. This agreeable spirit was kept up during the whole week, as we can testify from pleasant personal experience.

Tuesday, the eventful day for the opening of the Convention, arrived, and promptly at 10 AM. President Bogardus sounded the gavel, and proceeded with the business of the Association.

After the address of welcome by Local Secretary Hesler, and the response of the President, routine business was taken up. The report of the Executive Committee was an interesting one, as it gave the doings of that body between conventions, and made several important suggestions, one being with regard to the election of officers, and the other concerning the failure of the members to pay their dues, and the consequent debt of the Association. We hope at no future time in the life of the Association will the Executive Committee feel it incumbent upon them to speak of either of these matters again. 1. Because we believe the present year, 1874, will see the Association free from debt, and a growing treasury; and 2. Now that the members see the Association is going to live and grow, they will hereafter promptly pay their dues. Time will tell whether or not we are too sanguine in this matter.

The Treasurer reported the Association \$3556 in debt. His accounts were referred

to an Auditing Committee, and reported correct.

As recommended by the Executive Committee, preparations were now made for the election of officers. Messrs. Landy, Hall, Knight, Southworth, and Fitzgibbon were appointed as a committee to make nominations, to report at the afternoon session. They were instructed to report a multiplicity of candidates for each office.

Tuesday afternoon was devoted mainly to discussions on photographic practice, Mr. E. M. Collins taking the lead on the Causes of the Discoloration of Prints. He was followed by Messrs. Bowdish, on "Lighting and Retouching;" Lockwood, on "Making Good Pictures;" Rulofson, on "How to Push Business;" Webster, on "Manipulation;" Loomis, on the "Dignity of Photography;" Hough, on "Art Education," &c. The remarks and addresses were all models of terseness and practical usefulness.

The report of the Nominating Committee followed. Tellers and judges were then appointed for the election fixed for the evening session, and the tellers were instructed to prepare tickets and to distribute them. All this preparation was made, instead of the election being held as heretofore, in order to prevent the insinuations so prevalent that they were not conducted fairly.

Mr. Bogardus declined peremptorily serving another year as President. Bell made an address eulogizing Mr. Bogardus for his faithful service in behalf of the Association, and in favor of Mr. Rulofson for President. The session closed about 6 P.M., and as the members dispersed, for the first time they learned of the dreadful fire which had been raging near by for over two hours. The smoke was flying in dense clouds over the Exposition building, and caused great consternation all around. Great fear was entertained that the sixth exhibition of the National Photographic Association was doomed, and that before long the thousands of beautiful photographs displayed would be in ashes. Certainly no fashionable assemblage gathered there, as was expected, to see them, and all any of us could do was to watch and wait. Now the wind would drive the flames over us in

fearful sheets, and following, a rain of sparks and burning wood. At midnight it was thought best to remove many of the goods, and several exhibitors, desiring to be on the safe side, took the precaution to place their pictures, &c., out of danger. We joined them, and removed our collection of foreign photographs, books, lantern slides, &c., after midnight, to safer quarters.

In the morning we were delighted to find the building unharmed. The goods removed were replaced, and in a few days the exhibition halls looked as bright and beautiful as on the day before. But the fire had broken the spirit of enthusiasm, and there was a general anxiety to get away. However, those who did not flee the city, gathered together in the morning, and business was proceeded with as usual. But the backbone of the Convention and Exhibition was broken.

Wednesday morning, the first order of business was the reading of the report of the Committee on the Progress of Photography. This was followed by the appointment of a committee to fix the location for the next convention, and then Mr. W. H. Rulofson made a stirring appeal to the Convention to remove the debt "then, there, and now." He was followed by others, and it was resolved to take up the matter on the morrow. Other routine business followed In the afternoon, Mr. D. H. Cross, the skilful operator for Mr. C. D. Mosher, of Chicago, and a gentleman well known by his inventions, made an address on general photographic practice, and he was followed by Mr. C. E. Meyers, in an essay on photographic screens, which was elaborately illustrated by models. Minor practical discussions were entered into, and then Mr. John R. Clemons gave one of his inimitable "talks" on photography in general, and some branches of it in particular. He then answered the catechizing of the members until time for adjournment. The day was intensely hot, and was a fair test of the earnest desire of the visiting photographers for knowledge pertaining to their work.

The evening was devoted to the election. The polls were open from 7 P.M. to 9 P.M., the tellers and judges being promptly at their posts. The votes were deposited rap-

idly, only a few attempting to vote without first paying their dues. All such attempts were foiled by Treasurer Moore, whose very impressive appearance reminded the gentlemen of their first duty before voting. For the first time in its existence, the National Photographic Association held its election by formal ballot. The result was nearly the same as heretofore, and it is hoped that all croakings about "unfairness," "manipulation," &c., will forever cease, and that all good members will accept and support the officers which have been elected. The result of the election was as follows:

President—William H. Rulofson.
Permanent Secretary—Edward L. Wilson.
Treasurer—Albert Moore.

Executive Committee—W. Irving Adams, A. Bogardus, A. Hesler, V. M. Wilcox, I. B. Webster, J. W. Black, W. H. Rhoads, the President, Permanent Secretary, and Treasurer.

Committee on Progress of Photography—A. S. Southworth, W. H. Sherman, J. Landy, A. Gardner, Dr. H. Vogel, G. W. Simpson.

And one Vice-President from each State and Territory.

We need hardly stop here to speak our mind concerning the new President. You will have an opportunity to judge of him before this report closes.

Thursday morning President Bogardus occupied the chair, and received the report of the tellers. He then made his closing address, and welcomed his successor to the chair amid great applause. Mr. Rulofson made an address which won the whole Convention over to him, and we could see by the faces of those present that they meant to support him. He will prove a most worthy incumbent of the office, which he said he considered "next in honor to that of the Presidency of the United States."

Mr. Loomis offered resolutions eulogizing and thanking President Bogardus for his service. The Permanent Secretary and Treasurer elect, being called upon, each made a brief address.

To Mr. W. W. Gillis, Rochester, N. Y., was awarded the gold medal for the best display of frames, and to Messrs. Robinson

& Cherill, of England, the gold medal for the best display of photographs from England was awarded.

Mr. Bell now moved that the subject of the debt of the Association be taken up, and made an address on the subject. He was followed by others, when time for adjournment arrived. President Rulofson said the debt would be made the order of business for the first half hour of the afternoon session. (Applause.)

Mr. Clemons, Chairman of the Scovill and Holmes Medal Committee, reported that the committee had awarded the Scovill (gold) medal to Mr. W. G. Entrekin, Manayunk, Pa., for his Oscillating Enameller, and the Holmes (silver) medal to Mr. L. V. Moulton, Beaver Dam, Wis., for his Improved Photo Washer. Adjourned.

As announced, the first half hour of the afternoon session was devoted to the debt question. President Rulofson made a strong appeal for its removal, and others spoke on the same score. Many contributions then flowed in; a large demand was made for tickets in the "mammoth offer" enterprise, and about twenty were made life members, the whole amounting to nearly one thou-For a first effort this was sand dollars. very handsome. Mr. Bowdish gave two of his camera stands, which were quickly purchased; Messrs. Anthony & Co. gave a large camera box and stand, and there were several other gifts, which brought out the crowning one from Mr. Rulofson, of all the elegant pictures which he had on exhibition, and which, he announced, he would sell to the highest bidder in the evening. The Permanent Secretary, not knowing what Mr. Rulofson's auction sales would amount to, agreed to give one dollar more towards the debt, on a risk. President Rulofson avowed that he would make the Permanent Secretary "sick of that offer." (Applause.) One thing was most convincing, and it was worth more than all the money to see it, namely, that the members of the National Photographic Association value it, appreciate and see the good it is doing, and are determined it shall not fall. We congratulate them on their wisdom.

The Committee on Location for 1875 reported in favor of Boston, with Mr. J. W.

Black for Local Secretary. Mr. Black was present, and made graceful acknowledgment, the usual promises, &c.

Mr. J. H. Tompkins, Grand Rapids, Mich., addressed the Convention at length upon the status of the sliding-box patent, and was followed by Messrs. Southworth, Bell, &c.

A very pleasant feature of this session was the presentation to President Bogardus of a handsome solid silver pitcher and pair of goblets, as a token of their regard, by a committee of members of the Association. Mr. Bogardus received it in his usually graceful style.

Friday morning, the first thing taken up was the reading of Mrs. Lockwood's carefully prepared report on a Life Insurance League, and the formation of a Photographic Fire Insurance Company. These interesting matters deserve the attention of all photographers, and we recommend their careful reading. Both matters were referred to a new committee, to report next year.

Benjamin French, Esq., made an address on the "debt," and was loudly applauded. Further effort was now made to remove the debt, and amid much enthusiasm the scene of yesterday was repeated, until the Permanent Secretary announced that enough tickets had been taken for the mammoth prize to enable the drawing to go on. Mrs Lockwood and Messrs. Mosher and Slee were appointed to prepare for the drawing. More subscriptions were then received, and the articles given yesterday were sold to the highest bidders. The Permanent Secretary reported that President Rulofson's auction last evening netted \$224, and therefore he had to acknowledge himself involved to the amount of \$225 towards the liquidation of the debt. This being the case, the whole amount now paid and promised was sufficient to wipe out the debt! Tremendous applause, and three cheers proposed by Mr. Bell. Happiness reigned, and the drawing for the mammoth prize followed. In one hat tickets bearing the numbers of the tickets sold were put, and in another hat blanks in equal number were placed, on one of which was marked the word "Prize." Two children then

drew a blank and a numbered card simultaneously, under the charge of the committee. As drawn the numbers were announced to the Convention, and for nearly half an hour continued, before Mrs. Lockwood said "423"—"Prize." The Permanent Secretary referred to his list, and announced that Mr. W. H. Jacoby was the owner of "423," and therefore the prize was his.

A committee was appointed to intercede with the Post-Office Department, for better regulations for the mailing of photographs,

All routine business was now finished up, and President Rulofson bade farewell to the Convention.

Friday afternoon was occupied in practical discussions, Vice-President, Colonel H. R. Marks, of Texas, presiding. Addresses were made by Messrs. Collins, Elliott, French, Winsor, Husher, Libby, Hall, Webster, C. W. Hearn (author of the *Practical Printer*), Southworth, and others, when the Convention adjourned to meet in Boston, July, 1875.

Thus closed one of the most eventful conventions ever held by any body. While the fire prevented the attendance from being as large as usual, and while there were not as many papers read and practical discussions held as heretofore, yet we do believe that the stupendous and successful effort made to place the Association on a firm financial basis, has done really more for its future vitality and usefulness; and, without doubt, the National Photographic Association left Chicago stronger than ever before.

Want of space prevents our giving a list of the exhibitors until our next issue. We shall do so then, and have more to say, too, on the handsome reception of our Chicago friends, and also the present status of the Association.

MATTERS OF THE



Membership costs \$2; annual dues, \$4 Life membership, \$25, and no dues. All remittances of back dues should be sent to the Treasurer, Albert Moore, 828 Wood Street, Philadelphia, and fees and dues for new members to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Members are hereby notified that their annual dues are payable June 1st, 1874. Employers \$4, and employés \$2. The Treasurer urges that prompt remittances be made. Please remit now.

Life Members.—A list of the new life members will be given next month. Life Membership fee is \$25, and no more dues to pay ever after. Join the Association for life.

The Report of the Proceedings of the late Convention will be issued in pamphlet form at cost to subscribers. Before printing, the Executive Committee desire to know how many copies will be needed, and therefore request those who wish copies to notify the Permanent Secretary how many at once. The cost will approximate \$1 per copy. Those not members of the Association who subscribe will also be supplied. The report will be valuable to every photographer.

ON REPRODUCING NEGATIVES.

NEW YORK, July 20th, 1874.

DEAR SIR: I have been solicited by several photographers and others to give my experience in reproducing negatives, by what is known by the "Powder" or "Graphite Process," and having carefully tested it for the past three months I am prepared to indorse it, and with your permission will give the details of the process as I find best in my practice.

The process is not new, being based upon a method invented by F. Joubert, and explained by him in a paper read to the Photographic Society on March 4th, 1862, an account of which will be found in the *Photographic News* of March 14th, 1862, page 125.

The first use of this process for the reproduction of negatives that has come to my notice was from Obernetter, of Munich, who gave a full description in the *Photographic*

News for March 27th, 1874. Since then a modification by W. Woodbury was published in the same journal for May 22d.

In recent experiments with these processes I find that with Obernetter's method our climate is too changeable to secure uniform success; and by Woodbury's method, though better adapted to our climate, there is too much uncertainty in transferring the negative after it is made; but where a reversed negative is required, Woodbury's method is all that can be desired; still I prefer a modification of Obernetter's, for the reason that the resulting negative may be reversed or not at pleasure, and I have succeeded best with the following formula, viz.:

Dextrin,				4	grammes.
Glucose,				4	* *
Bichromate	of	Potash,		2	66
Water, .				100	66

In very dry weather, and for very intense negatives in pure line, ten drops of glycerin may be added, but in warm weather, and for negatives full of half tone, I prefer to leave it out entirely.

This mixture is thoroughly dissolved by heat, and filtered, and a carefully cleaned glass plate is coated in the same manner as with collodion, except that it is allowed to stand a few seconds on the plate, so that all portions may be evenly coated; the surplus may now be poured back into the bottle, and the plate thoroughly drained on bibulous paper, and dried over a spirit-lamp or a Bunsen burner, and then placed in contact with the negative to be reproduced while still warm, and exposed to light until the slightest trace of an image is visible, which will require about one minute in sunlight, or from two to five minutes in strong diffused light. The plate is then taken to a place where the light is not too strong, and brushed over with a camel-hair brush dipped in the finest graphite; the image will slowly develop, and may be strengthened by continued brushing to any desired intensity, but care should be taken not to make it too strong, as the graphite holds back the light more than silver. A negative, to print well, should be about as strong apparently as a good solar negative.

Breathing on the negative should be avoided, except on pure line work where great intensity is required. On these, breathing or blowing on weak parts may be an advantage, and such negatives can readily be made pure black and white; when the proper strength is attained the plate must be coated with a thick plain collodion, and when well set immerse in a dish of water; one minute will be sufficient to remove all the yellow color, when it should be dried; but if it should be required for ordinary silver printing, it must be left in water until the film becomes detached, when it can be turned over with a camel-hair brush, and by holding the corners of the glass and film together lift them both out together; drain, flow over with gum-water, and dry. Should there be dark spots in the negative they can be avoided by using less glycerin, or keeping the plate slightly warmed during development. Transparent spots are caused by particles of dust or grease that repel the solution, making the coating thinner where they occur; if the solution is allowed to stand on the plate a few seconds before pouring off these spots will not occur.

My best results are with plates that require at least five minutes to develop, and the surface of the negative always retains a brilliant lustre, and the less glycerin used the better the lustre, but too little will prevent the development.

It has been until recently impossible to obtain suitable graphite for this purpose, but I have to thank the American Graphite Company, 24 Cliff Street, New York, for the interest they have taken in the matter, by preparing the article in such a manner that I doubt whether there is any in the world that is better, and they have consented to put it up in any quantity to suit photographers and amateurs for experiments.

Whenever a large number of pictures are required from one negative this method has proved in my hands superior to any other, and I have no doubt but enlargements can be made as well if the exposure is made in a solar camera. This I have not tried yet, but intend to do so soon.

E. B.

THE PRACTICAL PRINTER.

In our July number, under this head, we reviewed our latest photographic publication, a work devoted exclusively to the printing department, by a practical man, Mr. C. W. Hearn, who has written and recommended only what he has proved by experience to be good and reliable. That we have not overestimated the work has been proven by the favor with which it has been received. The demand has far exceeded our expectations for the time it has been issued, and justifies the conviction we entertained in publishing it, viz., that there was room for just such a work.

We sold a large number at the Chicago Convention, and had a good opportunity to hear opinions expressed upon it. It was most favorably received and commented on, even by those who did not buy; and from all we heard only expressions of approval of its merits and fitness to fill the place for which it was designed.

In our hurry in getting out our July number, and preparing for the Chicago Convention, the cut of the printing-room was inserted with the description of the silvering and toning room. We see no better way to remedy this error than to insert the cuts of both rooms here in connection with the proper descriptions.

"The size of the main room, Fig. 1, is 10 x 15 x 10 feet. A is the printing-shelf, upon which the negative-boards are placed out to print. B is the sash of glass, through which the light enters on the shelf, and which sash is kept in place by the hooks C. D is a window which swings back and forth by means of the hinges D'. This window, when closed, is fastened by the button E. This window was arranged to permit the printer to open it in the winter-time and sweep the snow from the glass, without the trouble of removing his frames and then taking the sash of ground-glass in. There is another sash of plain glass made, which is placed out in place of the ground one, when it is so desired by the printer. F is the window-cord by which the curtain is pulled up or let down, as occasion requires. G is the drawer in which the albumen paper is placed when it is ready for printing. H is the drawer in which the prints are placed when printed, through the little aperture K,

> which is cut in the bench and supplied with a cover of tin or zinc, so as to avoid opening the drawer so often as to discolor the whites of the prints therein contained. L is the drawer in which the albumen-paper is kept. M is a drawer in which the plain salted paper may be placed; and N is another drawer in which the unsalted paper can be placed. P P are negatives which are to be printed, and which, when they are printed, are temporarily placed as at P', until they are filed away, which is done in another room.

"The shelves RRR are also negative shelves, which are used for special purposes, such as "the family negatives," &c., &c. The wide shelf is made for the storing away of negative-boards, vignette-blocks, porcelain printing-frames, &c., all of which are kept in order. The filling of the boards, &c., will be spoken of further on; suffice it,

for the present, to say that this filling is done on the bench T. U is the door leading to the 'silvering and toning rooms.' V is the fuming-box, which will also be explained further on. W is the box in which the old or used hypo-bath is poured, and zinc is thrown into it. X is a bench which is used for one thing and another, also for keeping bottles, &c., upon.

"THE SILVERING AND TONING ROOM.

"The principal use of this room is to sensitize the paper after it is albumenized, or in

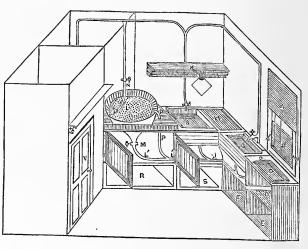
the case of the plain paper, after it is salted, and then later in the day, when the sensitizing is through with, to tone and fix, as well as to wash the prints in, all of which things can be done without at all interfering with each other

"A is a dark curtain, which in the figure is partly raised, but during the silvering and toning processes it is brought down to A', and the white bleached cloth screen B (which is shaded in the figure so as to show

it more distinctly) covers the rest of the glass, and thus, in the toning, a soft and diffused light is given to that part of the room (the shelf C) where the toning is done. D is the silvering-dish, and D' is the place where this silvering-dish is kept when not in use. E is where the kettle of potash is kept for the purpose of cleaning old plates. F is where the nitric acid tray is kept. GG are two sinks. His a shelf on which the toning-bath bottles may be kept. K is a rack with three overlapping pieces of wood, to which there are a number of spring clips attached, which hold the pictures while draining, as they are removed from the water. L is a washing-tank, which has a perforated false bottom through which the water passes into the lower part, and thence into the waste pipe L'. The stopcock M is adjusted after the tank becomes three-quarters filled, so that it will permit the water

to flow out as fast as it enters through the pipe N. P P is an overflow pipe, which conducts the water, when it reaches that place, into the waste pipe L'. R is the place where the hypo dish is kept. S is the place where the two-gallon hypo bottle is placed. This bottle is always kept full of a saturated solution of hyposulphite of soda. V is the door that leads into the drying-room."

From the foregoing extracts it will be seen how minutely the author has treated the details of his work. It is so all the way through;



no movement or method of doing a thing seems to have been overlooked, and yet it is all clear and explicit. He commences with the negative as it comes from the retoucher, and goes through the whole process of silvering the paper, printing, toning, and finishing the picture, on plain and albumen paper, and on porcelain, with instructions on all the fancy styles of printing and producing tasteful effects.

We are sure it will be a very useful book for reference, and every printer should have one to consult when the work goes wrong. The loss of a batch of prints, sometimes, which a hint from this book might save, would be more than the price of half a dozen copies. No photographer can afford to be without it. Price \$2.50.

As an example of what intelligent printing may produce see "Our Picture" this month.

GERMAN CORRESPONDENCE.

The Dull Season—Americans in Germany— Retouchers and Retouching—Obernetter's Method of Making Transparent Positives —Venus Expedition—Photographic Researches with the Spectrum.

WE are now in the midst of the dull season. In spite of the cold summer and incessant rainy weather the metropolis gradually gets empty. The can-get-aways go to the watering-places or to the mountains; and gradually our galleries assume a deserted look; only now and then a timid stranger puts in an appearance with the red Baedecker or the brown Murray in his hand. Amongst our visitors are many Yankees, who ask for a ferrotype or even a porcelain picture, neither of which are made here. At this writing a caravan of forty ladies is staying in Berlin, and all of them have been immortalized in the shape of Berlin cards.

"Do you consider the Berlin pictures superior to the American ones?" I asked a young American lady who had her picture taken. "Oh no," she answered, "I consider the American ones better, and only get a picture here so as to show my countrymen how far we are ahead in photography." Such patriotism is very acceptable. I have always met it in the American ladies. "Do you know Mr. Rocher, of Chicago?" inquired another lady. "Yes, madam, very well," was my reply. "Is he not the first photographer in the world?" exclaimed the lady. "No, that is Mr. Scholten, of St. Louis," replied her friend, a resident of St. Louis. You see that the American photographers are very well defended here, and I would propose that, at a future international exhibition (1885, in Berlin???), America will send female jurors only-young and handsome preferable.

Although business is very dull our society has not been idle; the summer meetings were even better attended than the winter ones, and recently a very animated discussion was devoted to the negative retouch, but this time the discussion did not turn on technical matters, but on the retoucher himself. The cause was the fate of several retouchers, who, relying on their art, had opened galleries for themselves, and, in

spite of their skill as retouchers, had failed of success, because their manner did not please the public, or they did not possess the ability to pose and light a person rapidly and properly, or because they lacked business ability. These facts have demonstrated that to carry on a photographic business more is necessary than merely technical skill. On the other hand it was maintained that the proprietors of many galleries are good business men, and know how to make money, but do not possess any knowledge of art, and expect of their retouchers impossibilities. It is certain that the photographic negative retouch does not exercise a beneficial influence on the photographer. Fritz Luckhardt, in Vienna, states that he had a first class artist as retoucher, who, in the beginning, made excellent work, but afterwards displayed a tendency to make everything smooth, and even to remove the characteristic lines. This is not brought about by want of taste or knowledge of art, but is due to the fact that the eye becomes dulled by use, and the opinion is general that no one can stand it longer than ten years. Mr. Prumm employs his retouchers for half a day on the negative, and the other half on the positive, and states this change enables his workers to last much longer. Lately a reaction against excessive retouching has set A number of photographs from 1862 were exhibited, at which time retouch was unknown, and the opinion was generally expressed that artistically, and in point of reproducing the characteristic features, they were fully equal to the productions of the present day. The retouch is now curtailed by many, and I have particularly to mention an artist by the name of Technor, who makes excellent pertraits, which he retouches only with a few lead-pencil lines.

We have learned also that no artificial light effects are necessary in order to produce a characteristic portrait. Side-light pictures, Rembrandts, and other tricks have long been laid aside.

Another important chapter which is discussed a good deal is the reproduction of negatives. The labors of Obernetter in this branch cannot be overestimated. Of course not everybody will obtain good results with his process, but the matter is of such great

importance that no one should give it up if the first attempts are unsuccessful, as perfection can only be acquired by practice.

Obernetter has recently published a process of making a positive from a negative by means of the dust process This process is not as important as the other. The making of negatives from a positive may also be made with little trouble by the collodion process; besides, the time of making positives by this process is, according to Obernetter's statement, longer. The method itself is not new, and was originated by Poitevin. The latter took a solution of chloride of iron and tartaric acid, and coated with it a plate of ground-glass, and when dry exposed it to light. The light reduces the sesquichloride to a chloride; the latter when exposed to the air attracts moisture, and pigment powder dusted over it adheres to the same.

Obernetter recommends for this process the following mixture:

The citrate of iron is finely pulverized, and is placed with the other ingredients in a flask, and heated to boiling, and left to stand until the citrate of iron has dissolved; when cold, the solution is filtered. plates which are prepared with this solution are slightly warmed, coated, and dried in a drying oven. In from five to ten minutes the plate is dry, and placed while still warm in the printing-frame on the negative, and exposed in the sun for from eight to ten minutes, in the shade for one hour. After exposure, we breathe upon the plate, when a feeble image will appear. By means of a brush, plumbago or red oxide of iron is dusted over the plate. Obernetter states that it is easier to dust such a plate than one prepared with chromate of potash. When the plate has been dusted, it is coated with plain collodion, placed in water for four minutes, when the film is removed and transferred to another surface. If the picture is to remain on the original surface, a threefold diluted solution of iron is used in the preparation of the plate, and the plate is coated with castor oil collodion, and left to dry. The picture can be varnished.

The expeditions for the observation of the transit of Venus are starting. On the 22d one of our parties started in the man-of-war Elizabeth for Kerguelen Island, and will meet on this uninhabited group of islands the English expedition and your countrymen, and lead for at least eight weeks a scientific Robinson Crusoe life.

In two weeks the second expedition starts for Auckland Island, south of New Zealand. This one Krem of Dresden accompanies, with his son, as photographer; and four weeks later the expedition for China departs, with which I intended to sail, but unfortunately my obligations here make it impossible for me to be absent seven and a half months. I regret that I will not be able to give to your readers photographic reports of India and China, but hope to find here sufficient material.

My credulity is somewhat shaken when I read that not only your honored townsman, M. Carey Lea, but also my honored colleague, Monckhoven, enter the field against my discovery of the action of yellow and red rays on bromide of silver. He has repeated my experiments, not with colored glasses, but with the true, real, genuine spectrum, and has not obtained my results; yes, and he asserts that in the Ecole Normal in Paris, and in Bunsen's celebrated laboratory in Heidelberg, my experiments have been repeated without success. An anonymous writer in the British Journal speaks to the world in the following manner: "Messrs. Carey Lea, Spiller, and others have given the final coup de grace to this notion of Dr. Vogel, and his fine theory of a prolongation of the action of the more refrangible rays of the spectrum must henceforth be relegated to the limbo of photographic abortions."

First executed, next banished (relegated), and fortunately I have suffered both proceedings from the distance without any inconvenience or damage, and have even, as an executed exile, the impudence to continue my experiments. If I had only tried two or three plates with the spectrum a doubt might be possible, but when two to three hundred experiments have been made with

absolutely the same result, there must be something more in it than a photographic abortion.

Photographic spectral experiments are rather difficult to make. They cannot be repeated with colored glasses, for these colors are impure, and experiments with impure colors belong to the same category as a chemist who wants to make a chemical analysis with impure chemicals. The objection that the spectral colors are not always pure either is not valid, for the same can be said of the "pure" reagents of the chemist.

Monckhoven has experimented with pure spectral colors, and did not obtain my results. The explanation is easily found. Monekhoven's spectroscope had a slit seven and a half times smaller than the slit of my instrument, hence seven and a half times less light entered his instrument than mine. Further, he elongated his spectroscope to forty centimetres, that is, he made it seven times longer than mine, and the consequence was that his instrument was fifty times more feeble in light than mine. Now with my instrument of great intensity of light, I had to expose for three minutes in order to obtain an impression in yellow. Monckhoven would have obtained the same result if he had exposed for 3 x 50 minutes, or one hundred and fifty minutes. Instead of that, he states that he exposed for two minutes only.

Monckhoven is in the position of a photographer who wants to try a very sensitive instantaneous collodion, and employs for the purpose a slow-working landscape lens of feeble light.

I have to mention still another mistake. Dr. Monckhoven probably colored his plates too highly. An intense color is not beneficial, but objectionable. Each particle of bromide of silver is surrounded by an envelope of colored collodion. If the color is too intense the light is weakened too much by being absorbed by the envelope, and can, therefore, not act with sufficient energy on the bromide of silver. A weak coloring which can only be established by experiment, is the only way to success.

Yours, very truly, Dr. Vogel.

BERLIN, July 1st, 1874.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.
Strong Developers.—New Encaustic Paste.

Strong Developers.—I remember some years ago a remark by a very accomplished photographic chemist, to the effect that he believed it would be less to increased sensitiveness in the film than to increased energy in the developer, that any advancement in rapid photography would be due. There can be little doubt that the discovery and application of more energetic developing agents than those now in use presents to the photographic experimentalist one of the most promising and useful fields for research. Gallie acid, pyrogallic acid, and the salts of iron, and occasionally combinations of two of them, were for many years the sole agents used in developing the latent image. Something like ten or a dozen years ago, some fine instantaneous stereoscopic negatives on dry plates were produced, as we were informed in confidence, by means of a developer consisting of a saturated solution of gallic acid, which contained, in addition, twelve grains of pyrogallic acid to each ounce. The first great advance in dry plate development was made, however, when Mr. Leahy discovered the principle of alkaline development by using ammonia. Since then the method has been worked out, systematized, and improved by various dry plate workers, but by none more effectually than Col. Stuart Wortley, whose discovery of the value of solutions of ammonia of a strength before undreamed of was one of the most marked steps of progress in this direction. A note presented by the same gentleman at the last meeting of the Photographic Society is suggestive of further improvement in the increased power it places in the hands of the photographer. By the use of the concentrated solution of ammonia, the power of obtaining perfect detail with considerably decreased exposure was secured. He now points out-and he verified his statement by exhibiting admirably illustrative negatives-that, by properly varying the proportion of pyrogallie acid to the increased ammonia, enormous control over the intensity of the negative is obtained.

To secure brevity of exposure and fulness of detail, full doses of ammonia must be employed; and to secure vigor and intensity, the proportion of pyrogallic acid must be used.

Here are the formulæ which Colonel Wortley recommends:

No. 1.

Pure Strong Carbonate of Ammonia, 80 grains. Water, 1 ounce.

No. 2.

No. 3.

Pyrogallic Acid, 96 grains. Alcohol, 1 ounce.

To each drachm of No. 1 add one minim of No. 2, and from one to six minims of No. 3, according to the density of the negative required, remembering that it is always well not to have too much pyrogallic acid in the developer to begin with, in case strongly lighted objects should thus come too dense at first; whereas, if we begin with from one to two drops of pyrogallic acid to each drachm, any amount of density can gradually be obtained by continued additions of two or three drops at a time of the pyrogallic acid solution.

If it is desired to replace the carbonate of ammonia by liquid ammonia, make up the developer with distilled water instead of the carbonate of ammonia solution, and to each drachm thereof add, as before, one drop of No. 2 and the necessary amount of No. 3, and pour two or three times on and off the plate; then add to the developing solution strong liquid ammonia (specific gravity 880), in the proportion of two minims to each three minims that has been used of the bromide solution. The two formulæ will then stand thus for a stereo-sized plate:

Carbonate of Ammonia Development.

80-grain solution of Carbonate, .	3 6	lrach	ms
120-grain solution of Bromide of			
Potassium,	3 1	ninin	ıs.
96-grain solution of Pyrogallic			
Acid, say	6	"	

Liquid Ammonia Development.

Distilled Water, . . . 3 drachms.

120-grains solution of Bromide of
Potassium, 3 minims.

96-grain solution of Pyrogallic
Acid, say 6 "...

Pour off and on, and then add strong liquid ammonia, 880.2 minims. If more density is required, add more pyrogallic acid; if more detail wants to be brought out, add more ammonia, and some pyrogallic acid therewith.

I feel sure that no one who gives this method a fair trial will return to the use of a weak alkaline developer; for while, by the strong developer, the sensitiveness of the plate is immensely increased, the chances of a plate fogging are infinitely less than with the old-fashioned weak developer.

It should be noted that this system of development is suited to gum gallic, tannin, beer, and other bath plates, as well as emulsion plates.

A New Encaustic Paste.—Two or three years ago I gave your readers details of an encaustic paste, the formula of which I received from Herr Grune. It consisted of Marseilles soap and white wax, and gave fine results. M. Clement Sans speaking of this paste, upon which he has made an improvement, says:

"This composition spreads with great facility, and yields a good polish; it possesses, however, the inconvenience of scratching the albumen film, and has, moreover, a strong odor, which after a time becomes quite insupportable.

"I have modified this encaustic paste, and as it is now composed, no fear need be entertained of the surface of the print being damaged. The odor is, moreover, very agreeable, and it gives a more brilliant polish. Here is its composition, viz:

Gum Arabic, powdered, . 2 parts.
Sugar Candy, powdered, . 5 ''
Transparent Glycerin Soap,
finely rasped, . . 10 ''
Water, quant. suff.

"The water is put in to moisten the soap and to dissolve the other ingredients. Afterwards there are added ten parts of white wax finely scraped. "The paste is heated upon a sandbath until it reaches the boiling-point, care being taken to stir the mixture continually to prevent its burning. It should be contained in an earthen vessel, large enough to hold five times the quantity. A brown glazed coffee-pot will answer the purpose very well. After boiling for a short time, and being well stirred, it is poured into any suitable receptacle to cool. When cold, the encaustic paste should have the consistence of pomade. It is applied to photographic prints with a rag or tuft of cotton-wool, in exactly the same way as other compositions of like nature."

OUR PICTURE.

The second of our prize series we publish this month, and feel proud that we are able to present such work in successive numbers as that in our last and this we now issue. We hope to continue at the same high standard till every reader shall have been stimulated to such effort as shall place him beside these (at present) leaders in our art.

This picture is from the studio of Mr. J. Barhydt, of Rochester, New York. It was only second in order of merit in the estimation of the judges, and in many points it was difficult to decide which was really the most excellent, this or the beautiful picture by Bradley & Rulofson, of San Francisco, which was published in our July number. But the judges were influenced in favor of the latter by the almost entire absence of retouching, the negatives being equally brilliant without it. But in this case one of the crowning merits of the work is the retouching. Not that this is elaborately retouched, for the print will show that it is not, but the work is judiciously done. We were not aware of the source of this excellence until we met Mr. Barbydt in Chicago, where he informed us that he did all his retouching himself! We also learned another secret of his wonderful success, which only proves what we have been trying for several years to bring the fraternity to believe, namely, that art will win. That there was one thing that photographers were yet lacking, and that was art instruction, art culture. Mr. Barbydt is a professional artist, being a retired portrait and landscape painter, full of the love and poetry of art, and possessing a love of nature that sees beauty in the tiniest flower or the simplest blade of grass. All this feeling and love of the beautiful, this knowledge of art and the laws which govern it, he has brought to bear in the production of his superb specimens of the art photographic.

It will be observed that there are no lines, or curves, or lights produced by the retouching, that give the picture the appearance of having been copied from a marble bust, but all is harmony and beautiful gradation. Excessive retouching gives the polished, marble effect referred to, and destroys the tender fleshly texture we see in such work as this. We commend the study of this feature of the work to all who wish to produce really artistic effects. But it is not in the retouching alone that this picture excels, for the lighting, posing, and chemical work evince great care and skill, and show that a master hand guided it all.

The prints were made for us by Mr. Barhydt on the "Extra brilliant N. P. A. Dresden paper," and as examples of printing cannot be excelled. It will thus be seen that the work represents Mr. Barhydt's establishment in every department, and we believe he has taken a peculiar pride and interest in giving us a picture that will serve as an instructive study to all, illustrate the high æsthetic attainments of our art, and sustain the wide and brilliant reputation he has already won.

Below we give Mr. Barhydt's letter, accompanying an interior view of his skylight, together with his negative and printing formulæ, by his operator, Mr. Sherman Gregg, and Mr. E. Case, his printer:

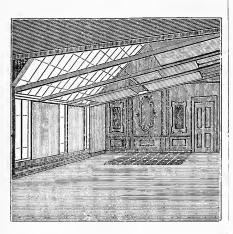
ROCHESTER, N. Y., June 11th, 1874.
MR. E. L. WILSON.

DEAR SIR: Inclosed you will find an interior view of the skylight attached to my gallery, which in its various appointments does not differ materially from other galleries in general. The light has a north west exposure, protected outside with lattice-screens—not the best light in the world, but the best we can get at present. The atelier is 20 x 36 feet.

Inclosed also find formulæ used by Mr. Sherman Gregg, my operator, in producing the negatives for your journal. I believe he is not wedded to any one formula, but uses that which he thinks best adapted to the season of the year.

Yours respectfully,

J. BARHYDT.



Mr. Gregg's formulæ:

"COLLODION.

Alcohol and Ether, . . . equal parts.

Iodide of Lithium, . . . 3 grains.

Iodide of Cadmium, . . . 3 . . .

Bromide of Potassium, 6 . . .

- "Negative Bath.—Forty grains strong—acid.
- "Developing Solution.—Iron half the strength of negative bath, which in this case is 20 grains; acetic acid enough to give a smooth flow. Fix in hypo."

Mr. E. Case's printing formula:

"Plain silver solution 60 grains strong. To 60 ounces solution 4 drachms of saturated solution of sal soda; fume, according to season, from five to eight minutes. Fix in hypo."

In conclusion, we must add that the fair subject who so amiably consented to sit for our picture is a daughter of Mr. Barhydt. We cordially thank her.

Editor's Table.

DR. VOGEL'S HANDBOOK OF PHOTOGRAPHY.— Owing to much overwork at home pressing upon him, Dr. Vogel has not been able to send us the sheets for his second edition quite as soon as we had hoped, but we now have the work in press, and hope to announce its completion in our next number. It will be vastly improved and enlarged. More about it in our next.

Honors from Germany to America.—The following note explains itself.

BERLIN, PRUSSIA, June 15th, 1874. Mr. Edward L. Wilson,

Editor Philadelphia Photographer, And Permanent Secretary N. P. A. of America.

DEAR SIR: I beg to announce that the Berlin Society for the Advancement of Photography, in consideration of their indebtedness to you for the intimate connection existing between German and American photographers, and for the acknowledgment which German photography has found in America, and for your services in behalf of your own National Photographic Asso-

ciation and photography in general, have elected

you an honorary member. You have only two associate honorary members, Dr. E. Horning, of Vienna, and Mr. Max Petsch, of this city.

Truly your friend.

DR. H. VOGEL,

President B. S. A. P.

We acknowledge our appreciation of this graceful compliment, and prize it the more because it comes from the city to which we have so long looked for example and advice as American photographers, and whose work gave us such a thorough stirring up a few years ago. German photographers, and especially our friends in Berlin, shall never be forgotten in America.

WE call the attention of the craft to the advertisement of Wilson, Hood & Co., in this month's issue. They have for several years been supplying to order stoneware dishes and solid glass (two prong) dippers, the demand for which has of late so increased, that they have decided to keep the sizes advertised always in stock. Special sizes will be made to order at a

slight advance. We have seen the articles, and can advise their purchase.

THE foreign competition for the gold medal offered by us is bringing some fine negatives, and we hope for a lively competition before the 15th of August.

THE LANDSCAPE PRIZE.—We wish to remind those who think of competing for the gold medal we offered for the hest three landscape negatives sent us by the 15th of August, that the time is short now, and whatever they do must be done quickly, as only about two weeks will remain after the issue of this number. This competition is confined to American photographers, and will close the 15th of August, allowing the usual three days' grace. Do not fail to make an effort, and send us the best you can. The terms are the same as those governing the competition in portraiture, published on the first page of our April number.

LANTERN SLIDES .- We recently sold a lot of slides to Prof. R. S. Boswirth, of Hungerford Collegiate Institute, at Adams, N. Y., and have received from him the seventh annual catalogue and circular of that institution. In the Department of Natural Sciences, "by means of the calcium or electric light, photographic diagrams, maps, views, and pictures are exhibited to illustrate astronomy, physical geography, natural history, geology, architecture, and history." We are constantly receiving evidence of how important a place the magic lantern is filling in our institutions of learning. This is as it should be. There is nothing we can commend that is susceptible of such a fund of instruction and entertainment, adapted to both young and old, as this popular instrument. But the most important item in connection with its use is a supply of slides, or pictures on glass, which always comprise a part of the outfit. We import these largely, and are prepared to supply them to colleges and other institutions on very favorable terms. See our advertising pages.

INTER-STATE INDUSTRIAL EXPOSITION OF CHICAGO will open September 9th and close October 10th, 1874. A pamphlet circular sent us by the Secretary, Mr. John P. Reynolds, gives all the necessary information in regard to the Exposition. We are glad to see photography as signed a prominent place in the department of "Fine Arts." This will be another fine opportunity for our Western photographers to display their work, and we presume they will not be slow in availing themselves of it.

THE "WESTERN PHOTOGRAPHIC NEWS: A Journal of Practical Photographic Information." —This is the title of a new sheet issued by Charles W. Stevens, of Chicago, just before the meeting of the National Photographic Society in that city. It contains a supplement, in which is given a map of the business portion of the city, very useful to visiting members. We are glad to see this additional evidence of the enterprise of the proprietor of the "Great Central." He understands the value of ink and paper, and while he diffuses knowledge among the craft, may his labors bring him a rich reward.

This initial number is filled with original and interesting articles from some of the leading operators of the West, with a page or two of well-displayed advertisements, and presents a very attractive appearance. It has our best wishes.

WET BOOKS.—We had supposed at one time that these were about exhausted, but we find that many that we supposed were uninjured and placed them away upon the shelves, have shown signs of dampness, and the bindings are stained so as to make it necessary to place them among the damaged goods. A reference to our late advertisement will give the titles, terms, &c.

Something New.—This is another little leaflet we have just issued, similar to The Photographer to his Patrons, but it is an entirely new work, and calculated to give such information to the sitter as shall save the photographer a great deal of trouble and annoyance. The favor with which the other was received, and the immense number we sold, over six hundred thousand, induced us to issue Something New; and we believe all who enjoyed the benefit of the few words, To my Patrons, will feel the necessity of having this to take its place. For terms, &c., see advertisement.

READING PHOTOGRAPHIC JOURNALS. — Mr. Hesler says something to the point which we extract from a business letter in reference to his arrangements for the Convention at Chicago. He says: "I am getting a good many letters inquiring about arrangements, by those not members, and who do not take or read the Journal, I presume. So I tell them to take the Journal, read and be posted. I don't see how any photographer can be so stupid and shortsighted as not to take and read the journals published on our art. They are mostly the ones who save five dollars in not subscribing, and pay twenty-five to fifty dollars for some simple formula that has

been published in all of them over and over again. I feel sorry for such."

CAUTION.—We suggest to our readers the propriety of being on their guard against a "patent adjustable screen for the transmission of yellow light," which is said to have been patented and put in the market by one Lewis Felong, of San Francisco. We would say, be sure of the effect of a yellow screen before you buy one.

MR. ROMAIN TALBOT sends us a "Wholesale Price List" of his photographic goods, gotten up in rather unique style. It is lithographed from a pen and ink copy, with cuts of dipping baths, dishes, &c., and presents a very neat appearance.

Of the many good words in reference to our publications we select the following testimonial to Dr. Vogel's Reference Book, which is one of the most useful works we have ever published:

"Accept my thanks for the handy little book kindly forwarded to me through our mutual friend Mr. Gates. I shall value it by constant use, as it is just what one so often wants. I usually take a book of this sort out with me.

"Again thanking you I am

"Yours, much obliged,

"FRANK M. GOOD."

Mr. Good is a celebrated English landscape photographer, and his opinion is valuable. This book is of a size convenient to carry in the pocket, and is especially useful to landscape photographers. It is what its name indicates, a Reference Book, alphabetically arranged, so that any desired information is instantly found under its proper head. See advertisement.

THE NEW MASONIC TEMPLE.—A fine series of views of the interior and exterior of this magnificent building, from negatives by Mr. F. Gutekunst, is being published by Mr. James Cremer of this city, in connection with Benerman & Wilson. We call the attention of Masons and others to the advertisement. All who are proud of the ancient Order, the noble principles it inculcates, and its high moral and social standing, should have a set of these pictures.

Photographic Art.—Few who have seen the prize photographs produced by Gutekunst, or who see the gold medal prize picture published in the *Philadelphia Photographer*, for July, will object to the use of the word "art," in connection with a chemical process and delicate manipulation for producing pictures. The picture referred to is the work of Bradley & Rulofson,

of San Francisco, California, and is perfect in all its details. The pose and lighting of the figure have received most careful attention, and the negative itself must have been sharp, clear, and soft, without being weak. The prints were made by Mr. William H. Rhoads, of this city, and are worthy of the fine negative from which they were taken. We have before spoken of the influence of photographic journals, in the improvement of pictures made by that process. The Philadelphia Photographer has adopted a plan with this end in view, which seems likely to lead to good results. A few months ago, the proprietors offered prizes for the best cabinet photographs sent to them for publication, and in this way secured the fine specimen of which mention has been made. - Public Ledger, Phila.

A COMPLIMENT TO CALIFORNIA PHOTOGRA-PHERS -Bradley & Rulofson, of this city, have received from Edward L. Wilson, editor of the Philadelphia Photographer, the gold medal awarded to them for superior skill in the photographic art. The Photographer is the organ of the National Photographic Association, and the prize secured by the San Francisco firm mentioned, was offered by Mr. Wilson for the finest negative in the United States, to be used in next month's issue of his journal. As the National Convention of Photographers meet at Chicago, in July, it is desirable that the Photographer should present an elegant and artistic appearance, hence the inducements for competition offered by Mr. Wilson. The medal is solid gold, and is in itself a fine specimen of artistic skill. -San Francisco Paper.

THE SHAW & WILCOX COMPANY AGAINST WILLIAM NIMS.—Mr. Nims has sent us a circular showing the status of this case, which is being tried in the Supreme Court of the City and County of New York.

PICTURES RECEIVED.—The National Photographic Association Convention has taken the attention of photographers from us this month, and we have not been favored with the usual number of specimens. But we have been remembered by a few, all of whom deserve credit and encouragement for their efforts. From J. Pitcher Spooner, Stockton, Cal., Victoria cards; cabinets from Mr. Ormsby, of Chicago; cards from Mr. James Howard, Plattsburg, N. Y.; and cards and cabinets from Mr. Julius Hall, Great Barrington, Mass. These last show some very pretty effects, and indicate progress in the right direction.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. **The We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

HANCE'S PHOTO. SPECIATIES. Please read my four page advertisement. Mr. G.W. Hope, Middletown, N. J., who has been using my Specialties for some time, says (July 17, 1874): "I use your chemicals altogether. Your DOUBLE IODIZED COLLODION works splendid, and its keeping so well, is an excellent feature."

USE HANCE'S SPECIALTIES. ALL DEALERS KEEP THEM.

PHOTOGRAPH GALLERY FOR SALE.—Well fitted with instruments of fine quality; good lights and good location. For further information, address L. D. WISENER,

Bluffton, Allen Co., Ohio.

Lea's Manual of Photography, \$3.75. See Advertisement. Third Thousand.

The Portable Gallery advertised in June number, can be bought now with backgrounds, chairs, mattings, head-rests, stove, benches, and other numerous articles, costing \$475 for only \$235. Purchaser, if he is a second-class artist, is bound to clear from \$300 to \$400 a year here; can easily prove it. Being compelled to leave must sell as quick as possible. Why do not artists read this. Write or come to see it. Address

F. DAEL, P. O. Box 141, Versailles, Ky.

Griswold's Stereoscopic Compositions. Read advt.

Gallery For Sale.—In one of the leading shopping thoroughfares in Philadelphia. Large amount of solar work made (direct solar camera on the premises). A good business established 17 years; all the facilities for making good work from medallion to 20 x 24. Reasons for selling, an accident to the proprietor. Call between 9 and 10, A.M., or address at his residence, 1208 South Fifth St., Philadelphia.

Reilly's Negatives of the Yosemite Valley, Sierra Nevadas, &c., for sale by Benerman & Wilson, Philada.

USE WAYMOUTH'S

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.

TO MY CUSTOMERS. NOTICE!

Office Chas. W. Stevens, proprietor "Great Central" Photographic Warehouse, 158 State Street, Chicago. Dear Sir: I beg your indulgence for any delay in meeting your commands with accustomed promptness. The National Photographic Convention, held in our city during the past week, and the extra labor of replacing goods moved during our late fire, is my excuse for asking this favor.

The "Great Central" is again in good shape for business, and with an unusually large and complete stock, ready to meet all demands with greater promptness than any other house in the trade.

Awaiting your pleasure and soliciting an order, Respectfully,

July 20, 1874.

CHAS. W. STEVENS.

Linn's Landscape Photography is the book for the season.

Wanted.—A good operator, as partner, with four or five hundred dollars; one who can retouch and make good work.

JAMES McKeown, Photographer,

Anderson, Ind.

PARTNER WANTED in an established STOCK BUSINESS, in a Southern city. Credit and business good, but can be very largely increased with another partner. Address AUGUSTUS, office Philadelphia Photographer.

FOR SALE.—The finest Photographic Parlors in the handsomest city in the state of New York. Entrance next door to P. O. Cash only buys it. Business for three persons, and lively. Address Well G. Singhi, Binghampton, N. Y.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition.
VIGNETTE PAPERS.

Lea's Manual of Photography, \$3.75. See Advertisement. Third Thousand.

THE BEE HIVE GALLERY FOR SALE .- The most convenient and best located gallery in Indianapolis, doing the largest amount of business in the city. Object, have fitted up an up-town gallery, and do not care to run both.

The above gallery is on the 2d floor, is supplied with water and water-closet, speakingtubes, separate toilet rooms, is the best arranged gallery in the city.

MRS. MARY A. POTTS, Proprietor.

Send your SOLAR allPRINTING to Charles K. Bill, 758 Broadway, N. Y.

FOR SALE .- A first-class gallery in Nashua, Iowa. A live town; population 2000. Gallery newly fitted up; centrally located; ground floor; plenty of room; north sky and side-lights.

Plenty of instruments for doing all classes of work. Country well settled. No opposition. .Will be sold cheap. For particulars, address

J. E. RICH, Charles City, Iowa

Criswold's Stereoscopic Compositions. Read advt.

FOR SALE .- At Mauch Chunk, Pa., Brown's (deceased) Photographic Gallery; fixtures and stereoscopic view negatives, of the coal regions, cheap. A photographer can open immediately, print the views and sell all he can make during the season. Over 90,000 visitors last season.

Address REUBEN KNECHT, Easton, Pa.

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.

ATTENTION is called to J. A. Anderson's Camera Boxes and testimonials in our advertisements. These boxes are fast taking rank among the leading boxes in the country, and photographers will find it to their advantage to post themselves in regard to prices, &c.

Photographers in the South and Southwest who would buy goods to their best advantage would do well to patronize the Stockhouse of Chas. A. Wilson, No. 7 North Charles St., Baltimore. Md. Send a trial order.

Linn's Landscape Photography is the book for the season.

OUR LATEST ILLUSTRATED PRICE LIST has been published. Central manufacture for pho-T. F. SCHIPPANG & Co., tography.

Berlin, S. W. Neuenburger St., 25.

Baltimore

Baltimore

Baltimore

Stockhouse, Stockhouse, Stockhouse,

Chas. A. Wilson, Chas. A. Wilson, Chas. A. Wilson, No. 7 North Charles St. No. 7 North Charles St. No. 7 North Charles St.

J. A. Anderson, Manufacturer of Photographic Apparatus, 65 East Indiana St., Chicago. Send for price list.

If you want to improve your work and save time get the Rapid Photo-Washer.

DANVILLE, IOWA, March 11, 1874.

MR. J. A. ANDERSON.

DEAR SIR: After a month's trial of the box bought of you, I am willing to add my testimony as to the superiority of your camera boxes. It . works like a charm and is satisfactory in every respect. Yours truly,

HUBERD WILLIAMS.

To Landscape Photographers.—Please remember, during the coming season, that we are in the market constantly for the purchase of good Stereoscopic Negatives of interesting American Views. Send proofs and prices of negatives to Benerman & Wilson, Photo. Publishers, Philadelphia.

Wanted. - Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

Criswold's Stereoscopic Compositions. Read advt. USE WAYMOUTH'S VIGNETTE PAPERS.

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.

I most cheerfully recommend Mr. J. A. Anderson's Camera Boxes, for beauty, durability, and cheapness. I have two in my establishment since my opening here, and find them fully up to the claims of a first-class instrument.

W. A. Armstrong,

State and Quincy Streets, Chicago.

Mr. Armstrong has for a number of years past been engaged in business in Saginaw, Mich., and is a photographer well known to the fraternity.

C. D. Fredricks and O'Neil's Glace Process.

CAUTION!—WE HAVE NO ACENTS. For information, apply directly to us. Specimen and circular sent on application. A SPECIAL COLLODION and all the materials necessary for working successfully. Embossing or Cameo Dies of any size furnished to order.

C. D. FREDRICKS & CO., 587 Broadway, N. Y.

East, West, North and South acknowledge the superiority of Nason's Inventions.

Lamson, of Portland, Me.; Eaton, of Omaha, Neb.; Zimmerman, of St. Paul, Minn., and Anderson, of New Orleans, La., are all men of large experience and excellent judgment, and each bought our goods, including the "Improved Background Carriage," "Universal Light Modifier," "Non-Ague Camera Stand," "Magic Mirror," "Nasonion Cut-Outs," and many other of our novelties.

ROCHER, BRAND, MOSHER, GENTILE, and many other well-known Chicago photographers, bought largely of NASON'S INVENTIONS. What better recommendations could possibly be had?

NASONIAN CUT-OUTS.
Unique—Novel—Neat—Useful—Artistic
See advertisement.

Wanted by the 1st of September, a strict firstclass operator and artistic poser, none but fully competent need to apply. To the right man a pleasant and permanent situation is guaranteed. Address, stating terms, Hallwig & Co.,

627 Olive Street, St. Louis, Mo.



SITUATIONS WANTED.

By a young man of three years' experience. Can make himself useful in any department of a gallery. Ferrotyping a specialty. Salary no object. Indifferent as to location. Address J. B. Ferguson, Rutland, Meigs County. Ohio.

As assistant operator, or as printer and assistant operator. Address Orlando H. Peck, Box 774, Richmond, Ind. Reference, Mote Bros.,

same place.

By an English photographer of eighteen years' practice, an appointment as operator, artistic retoucher, colorist, &c. Address Pyro, 215 Pearl Street, Brooklyn, N. Y.

By a young man who has some knowledge of the business in all its branches, as general assistant. Good references given. Address C. T.

Allman, Napoleon, Ohio.

As general assistant in a good gallery. Would prefer a place where I could get boarding and lodging with family of photographer. References given as to ability and character. Address Winfield Brilla, Richmond, Ind.

By a young man twenty years of age, as printer and toner, in some first-class gallery. Can operate. Best of reference given. Address Business, 30 Ontario Street, Cleveland, Ohio.

As operator or printer. Address Jos. D. Parker, Jr., 231 Mifflin St., Philadelphia, Pa. As dark-room man, and No. 1 portrait gla-

As dark-room man, and No. 1 portrait glacier. References. Address Photographer, 94 Fourth Avenue, New York.

By an India-ink and water-color artist. Is a practical photographer, and understands working the solar camera. Address J. W. Loyer, Mechanicsburg, Cumberland County, Pa.

As an assistant in a gallery. Has had experience in all branches; can retouch, and experienced in out-door work. Address E. R. W., Norwich, Conn.

By a young man as assistant operator. Is an experienced ferrotyper. Address W. M. Deming, Canaan, Conn.

By a first-class toner and printer. Has had three years' experience in a first-class studio. Will assist in dark-room, if needed. Can give good references. C. F. Heald, Cambridge, Mass.

By a lady, to finish photographs in colors and ink. References given and required. Address, stating terms, M. B. Atkinson, office *Philadelphia Photographer*.

Where I can learn photography in all its branches; have some knowledge in retouching negatives, and quite experienced in water coloring. Address Miss Pheba D. Hammond, box 426, Elgin, Illinois.

By a young lady, in a first-class gallery, as printer and toner, or attending in reception-room. References, if desired. Address T. B. McCaferty, Box 128, Columbus, Wisconsin.

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In a good photographic gallery, in any capacity, by a young man of three and a-half years' experience. Address G., care of M. J. G. M., P. O. Box 469, New Albany, Ind.

By a lady who has had nine years' experience in a first-class gallery; to attend reception room; mount and retouch pictures. Would be willing to make herself generally useful. Good references can be given. Please address Miss R. A. Gregory, 21 Court Street, Utica, N. Y.

As an assistant operator, negative retoucher, or printer. Address, stating terms and particulars, to Photographer, P. O. Box 128, Ottawa city, Ontario, Canada.

By an energetic young man, in a first-class gallery, as printer and toner, finisher or operator. Have had some experience in the business. Good recommendations if required. For further particulars, address F. S. McKnight, Rienzi, Alcorn County, Miss.

By a young man of steady habits, as an assistant in mixed work; or will take any part of the work. Can retouch very well. Address C. D. McClary, Alexandria, Madison County Indiana.

To learn, by a young man of steady habits, who has had some experience as general assistant. Could be useful as printer's assistant, and could take charge of printing after some practice. Can mount photographs and finish ferrotypes. Wages not so much of an object as a good situation. Address soon, "Beginner," care Box 43, Skaneateles, N. Y.

By an operator of nine years' experience, in a good Gallery. Has been used to (and is now) doing the general work of a gallery. Address W. I. Rood, Spencer, Clay Co., Iowa.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary, 27 Central Square, Cambridgeport.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N. Y.—Fourth Tuesday in each month, at 179 Montague Street. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary.

Photographic Society of Philadelphia. — Adjourned.

Pennsylvania Photographic Association, Philadelphia.—Adjourned.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State Street.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, See'y.

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The Grand Lodge of Pennsylvania, finding from the rapid growth of the Order they must provide a more spacious edifice for the meetings of the numerous Lodges, in 1867 purchased the lot on the Northeast corner Broad and Filbert streets, suitable for their purpose, it being bounded on all sides by streets. With great care a plan was decided upon—James H. Windrim, Architect. The building is of granite, 250 feet long, by 150 feet wide, style of the Norman school, two stories and entresol, with pinnacles and towers; main tower 240 ft. from the base; foundation 31 ft. below the level of street. The corner-stone was laid June 24th, 1868, with appropriate Masonic ceremonies. From that time, until September 26th, 1873, the date of dedication, the Building Committee labored indefatigably, and present, as the result of their labor, a Temple first in splendor since the days of King Solomon. The cost of building and furniture, one and a half million of dellars.

The cost of building and furniture, one and a-half million of dollars.

The cost of building and furniture, one and a-nair million of dollars.

The interior has one main hall, of Doric architecture, sweeping through from end to end, 250 feet long, and 20 feet wide. On either side are the rooms set apart for the officials of the Grand Lodge, fitted up in the most approved manner. On this floor, also, is the "Grand Banqueting Hall," of the composite order of architecture, with decorations of flowers, game, and fruit. The room is 105 feet long, 50 feet wide; ceiling 30 feet, with accommodation for seating 500 persons. Upon this floor there is one Lodge room called the Oriental Hall, from its style of architecture. It will seat 200 persons. Its decoration and furniture strictly accord with the Oriental style, as do all the decorations and furniture of the Tample conform to the style of architecture of the rooms is which they are niture of all parts of the Temple, conform to the style of architecture of the rooms in which they are placed. The heating and ventilating apparatus are wonders. The water is supplied from two sources; part from the city: but the main supply is from a well beneath the tower, which is forced into four

cedar tanks of four thousand gallons capacity each, placed at different parts of the building.

The principal floor is divided into Lodge rooms—that of the Grand Lodge the largest; it is 105 feet long, 51 feet wide, ceiling 50 feet high; will seat 800 persons—it is in pure Corinthian style. Grand Chapter Hall is 90 feet long, 50 feet wide, and 50 feet high, and is in the Italian Renaissance style, and will seat 600 persons. The Commandery Rooms are situated in Eastern entresol, above the principal of the control of the contro and will seat one persons. The commandery Rooms are situated in Eastern entresol, above the principal floor, of Gothic architecture, and will seat 500 persons. The suite consists of the Asylum, Council Chamber, Banqueting Hall, Armory, and Regalia Room. All are grandly magnificent. The remaining rooms are the Egyptian, Ionic, and Norman Halls, with others, each a marvel of beauty.

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- 9. My Lady and My Lady's Maid.
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- 11. Unveiling a Statue of Young America.
- 12. Young America in the Nursery.
- 13. Young America as an Artist.
- 14. Young America Asleep.

- 15. The Sunbeam Fairy.
- 16. The Picture-Book.
- 17. Sitting for my Picture.
- 18. Young America Bathing.
- 19. Young Boston's Ambition.
- 20. Ding-Dong-Ding, Music on a Rubber String.
- 21. Reflection.
- 22. The Loiterers.
- 23. The Cabin Porch.
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MEDAL

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 5 F. B. Clerch, Lockport, N. Y.
 6 Theo. Nieberg, St. Marys, O.
 7 C. Chadbourne, Toledo, O.
 8 E. H. Alley, Toledo, O.
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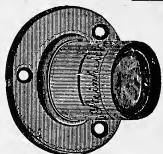
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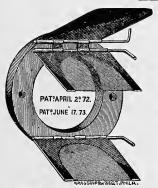
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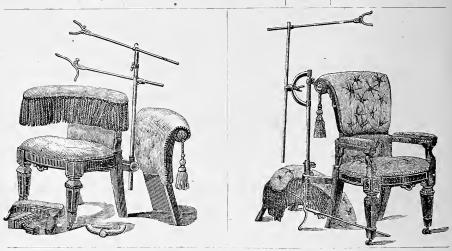
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ALL THE REQUIREMENTS OF THE INTELLIGENT PHOTOGRAPHER IN THE PRODUCTION OF ARTISTIC RESULTS IN PRINTING.

WHEREVER YOU WANT TO KEEP OUT LIGHT, USE OPAQUE.

It is applied with a brush, dries quickly and sticks.

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FOR USE WITH THE ROBINSON PRINT TRIMMER

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ROBINSON'S

PHOTOGRAPH TRIMMER

IS A NECESSITY AND CONSIDERED INVALUABLE.

For examples of its work we refer to the recent and present pictures in the Philadelphia Photographer.

IT SAVES TIME, SAVES PRINTS, AND SAVES MONEY.

The accompanying cut represents the instrument in the act of trimming a photograph. It does not cut, but pinches off the waste paper, and leaves the print with a neatly beveled edge which facilitates the adherence of the print to the mount. Try one, and you will discard the knife and punch at once.

Oil the wheel bearings with Sewing Machine Oil.

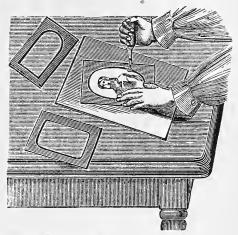
A Trimmer Mailed for \$3.50.

The difficulty of procuring exactly true guides for cutting out prints has induced the inventor to put up machinery for the production of all styles of them, guaranteed mathematically true, and to be known as

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"I would rather give fifty dollars than be without one.- By its use all annoyance from dull knives tearing the prints is avoided, and it is a pleasure to use it."—E. T. WHITNEY, Norwalk.
"Robinson's Photographic Trimmer is an excellent little instrument. It does the work intended magnificently. It is not only exquisite for trimming photographs, but also for making Cut-Outs and cutting the sensitized paper to any needed size, using for the latter purpose a guide of steel in form of a ruler, thus entirely dispensing with the knife."—BERN'D KIHLHOLZ, Chicago, Pil.
"I like the Trimmer very much. I think it a very useful article. It works well and does all it is recommended to do."—F. G. WELLER, Littleton, N. H.
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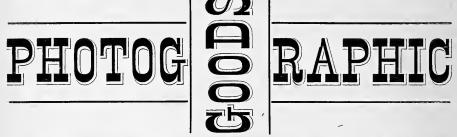
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FOR SALE BY ALL DEALERS.

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And we have been requested to do the same, but have declined to enter into any combination whatever. Photographers can rest assured that we shall adhere strictly to our LOW PRICES, as published in our Catalogue of August, 1873, until further notice. The prices therein quoted are the lowest yet made, and all who have not received that list will please send us their address, when it will be promptly forwarded. Note our very low prices on

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Everything sold at bottom figures, and all orders executed to the letter, and with the greatest of promptness. Agents for the Northwest for

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We hope all those who have not tried the Scotch Albumen Paper, will give it a trial, as it is giving universal satisfaction, and is having an immense sale. We have it in White and Pink.

Prices furnished on application for Woodward's Solar Cameras, either the Reflectors or Direct Printers, with license attached. Any one desiring a license for the use of Solar Cameras, can get the same of us at the price charged by Mr. Woodward, \$40.00.

Don't forget to order a Weston Burnisher; we are selling large numbers of them, and the fine effect produced from their use is commending itself to all.

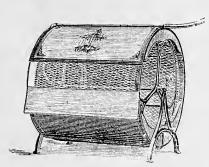
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RAPID PHOTO-WASHER.





Patented August 12th, 1873.

New in Principle.—Quick and Reliable in Practice.

Instead of soaking the Prints it applies the water in the form of spray, with considerable force, to both sides of the paper at each revolution, or from one hundred to one-hundred-fifty times per minute. Washes with exact uniformity, and gives more brilliant and permanent work; is simple, not liable to get out of order, will last a lifetime, and will enable you to get out work at short notice, thereby securing many orders that would otherwise be lost.

	Size	Cylinder,		Capacity in Cards.	Largest Print.	Price.
Diam.	16in.	Length	14 1-2in.	84	14 by 17 ins.	\$30
66	20	"	19	144 ·	18 by 22 "	40
44	25	"	24	220	22 by 28 "	50

Larger sizes may follow.

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TESTIMONIALS.

"I write to testify to the satisfaction I feel with the working of your Rapid Print Washer. It is simply perfection, as far as my experience with it goes, viz: One year's constant use. I have washed eight dozen cartes in ten minutes, and the most accurate test I know of, starch and iodine, failed to show a trace of hypo. remaining."—L. G. BIGELOW, Detroit, Mich., Feb. 10th, 1874.

"Time saved is money earned." The above maxim is as true in the photographic business as in any otker, and in this connection I would say, that Moulton's Rapid Photo-Washer will save more time in any well-regulated gallery, than any mechanism ever yet invented; besides the prints finish with a finer lustre than those washed by any other device I have ever yet seen. Having used one for the past two months, washing from 100 to 300 prints daily, I am pleased to add my testimonial to its excllence."—WM. M. Lockwood, Ripon, Wis. March 11th, 1874.

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"After analyzing the prints which were washed by you during ten minutes, in your Rapid Photo-Washer, and those furnished by an artist of this city, washed in a syphon tank in running water for one hour and left in the water over night, for the quantity of hyposulphites left therein, I take pleasure in stating that the prints treated in the Rapid Photo-Washer contain perceptibly less hyposulphites than those washed in the other manner described."—Gustavus Bode, Analytical Chemist, and Dealer in Photographic Stock, Milwaukee, Feb. 21, 1874

L. V. MOULTON, Beaver Dam, Wis.

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The recent fire in our establishment caused a part of our large stock of Lantern Slides to be damaged by water. For all practical uses they are not damaged at all. Any photographer, by repairing the sticking paper around them, may make them as good as new. We cannot repair them to look like fresh stock, so we offer them at the following reduced rates:

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Colored Scripture and Comic Slides, 60 and 75 " Retailed at \$1.25 and \$2.00.

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for Care given to selecting for parties who cannot be present to select for themselves.

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Has stood the test above all other makes for the last nine years. An article extensively used for all Plain Solar, and Colored Work. Sizes, 1734×23 , 26×40 , and 35×46 .

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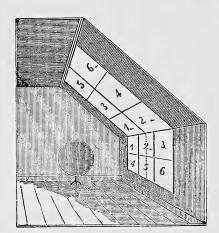
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A NEW EDITION HAS BEEN ISSUED WITH AN ENLARGED KEY,

AND NEARLY ALL NEW STUDIES.



This album brings lighting and posing down to a system at once plain, easy and desirable.

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Telling exactly HOW EACH PICTURE WAS MADE; WHERE THE CAMERA AND THE SITTER WERE PLACED when it was made; WHAT CURTAINS WERE OPENED in lighting the subject, &c., &c.

A diagram of the interior of the skylight is given in each case, telling the whole story. IT IS BOUND HANDSOMELY IN CLOTH, GILT.

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have tried it say below.

3d. It is also intended to convey to the public at large the fact that photography is not a branch of mechanics, nor photographers a sort of mechanic themselves, but that both are entitled to respect, the same as the family physician or the minister; that the photographer has rights as well as the public; that he must be trusted, and that he alone is responsible for his results. Moreover, that he must make the picture and not they.

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We get "The Photographer to his Patrons" up in neat style, on the best letter cap paper, assorted tints, green, pink, and buff. Eight pages are devoted to the body of the work, which contains paragraphs or chapters—1, on the object of the work; 2, on photography; 3, when to come; 4, how to come; 5, how to dress; 6, how to "behave; 7, the children; 8, general remarks on coloring, copying frames prices for ing, frames, prices, &c.

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- "The many valuable hints in it cannot fail to be beneficial to both photographer and patron.'

 —Brown & Higgins, Wheeling, W. Virginia.

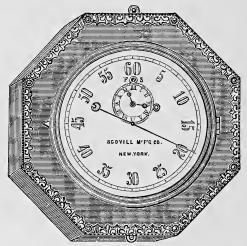
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No.	1,	21	inch	focus,	3	x	3	plate,			\$20	00	No.	1	and	l No	. 2	combined,			\$33	00
"	2.	34	4.4	* *	4	x	5				25	0.0	61	2	٤ ٤	"	3	"			40	00
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51/3 x 71/3 @ 9 00 "		9 x 11 @ 15 00 "	13 x 17	@ 36 00 "
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We will still keep a well assorted stock of

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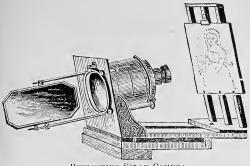
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We also have a full line of CAMERAS of the best makes and latest improvements, CAMERA STANDS, HEAD-RESTS, BACKGROUNDS, and all Accessories necessary to the Photographic Art. We would call the attention of photographers to the fact that we manufacture SQUARE FRAMES, and so can generally ship any frames (especially odd sizes) the same day they are ordered. We would also call attention to the noted ALBU-MEN PAPERS, Morgan's and H. Extra, the best for warm weather, for which I am the agent.

THOMAS H. McCOLLIN.

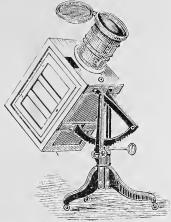
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12		4.6	4.4	* 6	ı î		25×30	"							220	0.0
15	6.6	+ 6	**	6.6	6.6	4.4	29×36								275	0.0
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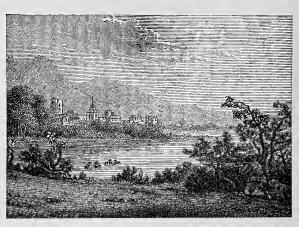
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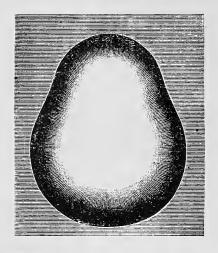
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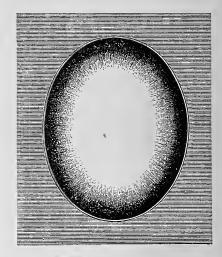
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No	s. 1, 2, 3, 4, and 5, ass	ortec	l sizes and	colors	s, for Cartes, by number, per dozen 50
	6, 7, 11, 12, and 13		"		Large Cartes and Victorias, by number, per doz 75-
4	S, 9, 10, 14, and 15		**	44	Cabinets and Whole-size, " " 1 00
6	16, 17, and 18,	"	"	"	Half " " " " … 1 25

(SEE OPPOSITE PAGE.)

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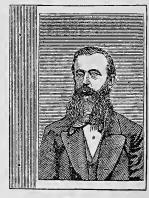


Fig. 2.

Fig. 1.

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The attention of advertisers, and those having galleries, &c., for sale, is called to our Specialties pages. Terms \$2 for six lines, and 25 cents for each additional line, seven words to a line, always in advance. Duplicate insertions, 50 cents less, each. Sure to pay. Derators desiring situations, no charge.

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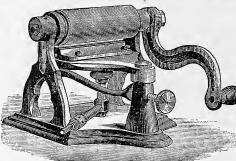
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Given on the question of priority of invention between the Weston and Entrekin Burnisher Patents. Said decision has been given in favor of THE ENTREKIN OSCILLATING ENAMBLER, on a hinged holding plate, etc., etc. (See decision of Examiner, July 3d, 1874.)

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WILLIAM G. ENTREKIN.

WILLIAM G. ENTREKIN.

[Published by the authority of George Harding, Esq., Attorney-at-Law.]

WILLIAM G. ENTREKIN.

WASHINGTON, D. C., Friday, June 5th, 1874.

DEAR SIR: Yours is just received. You need not fear any trouble from any parties in regard to the Weston Iachine. Your Burnisher does not infringe with any feature of the Weston Machine in the least particular. You can, therefore, manufacture and sell your machines with impunity. Yours truly,

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Number 129.

50 Cents.

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PHILADELPHIA

Photographer.

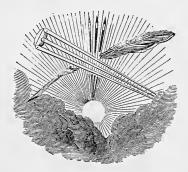
AN ILLUSTRATED MONTHLY JOURNAL,

DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

September, 1874.



PHILADELPHIA:
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S. W. COR. SEVENTH AND CHERRY STS.

Subscriptions received by all News and Stock-Dealers.

FIVE DOLLARS PER ANNUM; IN ADVANCE.

Sherman & Co., Printers, Philadelphia.

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" 68.—A Standard Interior.

" 71.—Mora Interior.

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It is the hope of both author and publishers to create **REFORM** in this matter, by the issue of this work, and as it is to *put money in the pockets* of all who read it, the hope is that it will be generally read.

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INTRODUCTION.

The Printing Room, with a Plan. The Silvering and Toning Room, with a Plan. The Drying Room, with a Plan.

PART I .-- ALBUMEN PAPER PRINTING.

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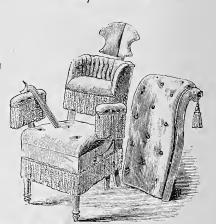
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Photographers can save from 10 to 20 per cent. by sending direct to the manufactory for Apparatus.

TESTIMONIAL.

ELGIN, April 5th, 1874.

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LEAD THE VAN!

ORDERS FOR 307 CASES OF THE

"NASONIAN CUT-OUTS"

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There is no cut-out in the market that is got up or put up in as good style as the *Nasonian*. The paper used is of a superior non-actinic quality. The designs (copyrighted) are unique and novel, and at the same time neat and artistic.

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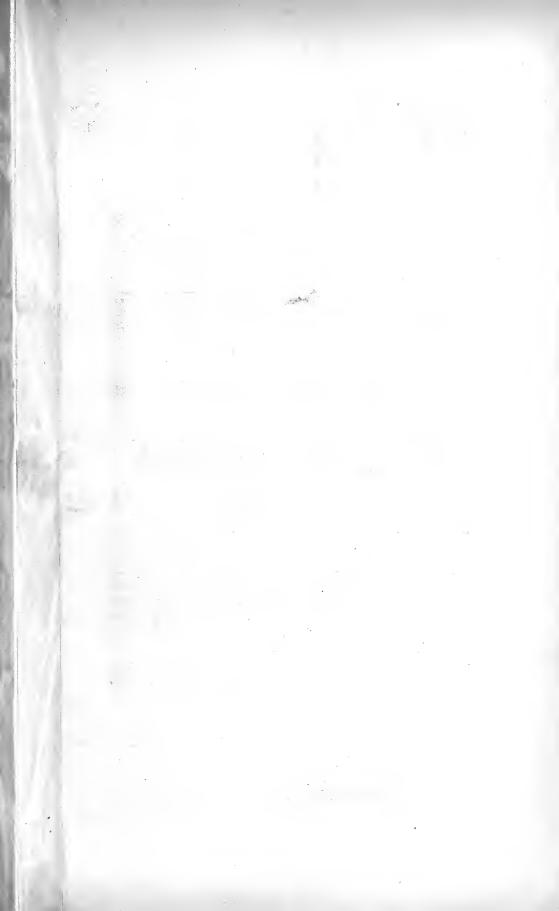
ALSO,

Hermagis' Inimitable Focusing Glasses, \$6.50.

These lenses are unsurpassed by any other. Sent on trial to responsible parties, C. O. D., and instructions to Express Company to hold money one week for trial.

BENERMAN & WILSON,

Seventh and Cherry Sts., Philadelphia, Pa.





Philadelphia Photographer.

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THE MAGIC LANTERN.

THE more we think upon the subject, the more are we confirmed in our opinion, that the magic lantern is going to become more popular as a source of family instruction and amusement than the stereoscope ever was. Of course this will be attained by degrees, and perhaps slowly, but it is bound to come. As a picture, nothing equals a well-made positive on glass. It gives everything in the negative, even more than the eye can see; and then when one enlarges it upon the screen by means of the lantern, all may assemble around it and enjoy it, instead of only one being enabled to sit down selfishly alone to see it, as is the case with the stereoscope.

Now one of the first steps towards bringing about what we predict is, the making popular the magic lantern as a source of amusement by photographers—they are the ones to do it assuredly—giving family lantern exhibitions on the plan suggested by Mr. Hesler, namely, in private parlors, and in halls, lyceums, churches, &c. We know of several very eminent photographers who, for several years, have very quietly been coining money in this way, and who continue to follow it up vigorously. We want to show others how to do the same thing.

There is not a photographer in any town of five hundred inhabitants but can make

money in the same way; and the best of it is, it can be done at that season of the year when his photographic business is dull. For the reason, then, that we "see a dollar in it" for the fraternity, and for our honest selves, we have determined upon keeping the subject of the magic lantern before our readers, for the coming season at least. And in order that we may not infringe upon the rights of those not interested, we will do the thing at our own expense, by adding a supplement to our magazine, and to which we call your earnest attention.

We are sure that sooner or later, you must take this matter up, and we will endeavor to place such information in your hands as will enable you to do it in the most economical and best way. For such information refer to *The Magic Lantern*.

WET BOOKS.

The books damaged by water at the time of the fire in our office, last March, are not yet exhausted; indeed, they have continued to develop to an extent far beyond anything we have ever seen by any process. We supposed at one time that we had disposed of most of them, but upon examination of those that had been placed upon the shelves as perfect, we found that the dampness had been lurking there, and doing its work most effectually. The bindings had been

attacked by roaches and mould, by the fermentation of the paste; under these circumstances we were obliged to consign them to the stock of wet books. It now comprises—

Linn's Landscape Photography.

Anderson's Photo-Comic Allmynack.

Mosaics, from 1866 to 1874, inclusive.

How to Sit for your Photograph.

Dr. Vogel's Reference-Book.

Lenf Prints, or Glimpses of Photography.

Bigelow's Album,

Volume 4 (1867), Philadelphia Photographer.

Volume 8 (1871), Philadelphia Photographer.

Volume 1 (1871), Photographic World.

Swan's Carbon Process.

Carbon Manual and Silver Sunbeam.

The most of these books are but slightly damaged, and are just as good as new, as far as use is concerned.

We propose to put them up in lots, and at prices that will be within the reach of all. For further particulars see our advertisement.

ALUM.

BY W. H. SHERMAN.

It was announced before the National Photographic Association at Chicago, by Mr. Clemons, that he had discovered a simple process by which the hyposulphite may be eliminated from silver prints, after fixing, in the short time of eight minutes. All that is required to insure this most important result is to immerse the prints, directly from the fixing bath, in a saturated solution of alum, whence, after removal and rinsing in a few changes of water, the work is accomplished, which otherwise requires much labor and many hours' time, and is even then but imperfectly performed.

I am unable to say which was most to be wondered at, on that memorable occasion, the comparative lack of enthusiasm with which the announcement was received, or the quiet and undemonstrative manner in which the discovery was made known. But more wonderful and surprising than either are the simplicity and completeness of the process.

Here is the problem which has baffled the inquiry of investigators ever since it became known that silver prints would fade,

until not only is the possibility of their permanence wellnigh despaired of, but the public are beginning to intimate, in a manner ner not to be misunderstood, that something must be done to remedy the difficulty. The need of some safe and sure method of removing the hyposulphite from the prints is pressing. Practically to accomplish this by washing is impossible. If the prints are washed rapidly some of the hypo remains, and its presence may be detected by a suitable test. If they are washed a long time they at length turn yellow in the water, probably by decomposition of hyposulphite and liberation of sulphur. It remains then to choose one or the other horn of the dilemma. One is to remove the prints from the water in a short time, with their brilliancy unimpaired, but with hypo in them; the other is to wash them until, if there is no hypo in them, they are more or less yellow with sulphur from decomposed hypo. Of the two the former is, unquestionably, the better choice. In either case they will fade.

Is it possible that photographers are so indifferent to the future fate of their productions as to fail to appreciate the discovery that enables them, in so simple and easy a manner, to remove the cause of the mischief, which, if not remedied, will sooner or later seal the doom of silver prints?

The hypo all removed and the washing completed "in eight minutes!" It can be done. There is no mistake about it. There is no longer even the shadow of an excuse for photographers palming off pictures with hypo in them. But little water is needed for the prints after they have been in the alum. One or two pailfuls will answer if it happen to be scarce.

As to the alum solution, it may be used over and over again. Mr. Clemons did not tell us this, but it is so, nevertheless. Take a strong barrel with wooden hoops, say a whisky barrel, and into it put a bushel of alum. Fill the barrel with water, and stir with a broom-handle until no more will dissolve. This will last your lifetime. After fixing, put your prints from the hypo right into the barrel; or, if more convenient, drain off the hypo, and then dip out enough of the alum-water in a wooden bucket, and

pour over the prints. After stirring and soaking the prints, the alum may be poured back, and stirred up with the rest. It may then be left to settle.

It will be observed, after immersing the prints in the solution of alum, that the liquid will assume a milky appearance, and the sense of smell will easily detect the odor of burning sulphur. The former is sulphur from the decomposed hypo, and the latter is sulphurous acid from the same source. After the prints are removed from the alumwater and rinsed, dry them thoroughly, and burn them.

The alum "eliminates" the hypo, by converting it into sulphate of soda, sulphur, sulphurous acid, and water. This completely disposes of the hyposulphite. The sulphur being insoluble, the portion in the prints when liberated by the alum remains in the prints. This is the chief objection to Mr. Clemons's process. The sulphur must be "eliminated" or the prints will fade. This may be said to be an established fact. Sulphur, in a state of minute division, especially when associated with organic matter, oxidizes in the air. This, it is known, will cause paper to become rotten, and this is believed to be the cause of the fading of silver prints when a trace of hypo is left in them.

Whatever method is employed to remove the hypo from the prints, it is essential that the process, by which the elimination is effected, do not introduce some substance or substances equally or more injurious in the place of that which is eliminated.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

IX.

From Rome to Naples by rail direct. The most of the journey was made in the night, and two jabbering Italians served as a sure preventive of sleep. When two hours or so from Naples the train stopped at the fortified city of Capua, and I got out, untied and untwisted myself, and caught my first view of Vesuvius! The sun was just rising, lighting up and coloring with a crimson hue the great length of

cloud which the old volcano was pouring forth from its crater. The peasantry were moving lazily along the roadway to their daily toil—some with their little donkeys so completely covered up with their load that nothing but head and tail could be seen, the gentleman peasant seated on top of all, while in the rear walked the lady peasant, whose duty it was to twist the tail of the



The result of which was.

poor brute and belabor him with a elub, in order to increase (?) his speed.

Donkey nature has always been a subject of study with me. I noticed a peculiar feature in the character of the Naples donkey. He would first bear a

great deal of tail-twisting and beating by the lady peasantess very patiently, until the aforesaid peasantess would be thrown off her guard, and give a most cruel twist, when donkey would put out his head at an angle of 45°, protrude his ears at right (and left) angles, and with an unearthly bray start upon a peculiar gait, neither a trot nor a run, but a jolt, the result of which was sure to be the spilling off of the gentleman on top of the load and much of the load, together with a disrespectful distance being caused between woman and beast. I always sympathized with the donkey.

Great vineyards and groves of fig trees surrounded us in all directions, and the seene was a most picturesque one. A whole drove of beggars awaited us at the station. A young girl with a child selected me as her victim, and she seemed to say by her gestures that she would be compelled to cut her throat then and there, immediately, unless I gave her the wherewithal to purchase macearoni, so to avoid seeing a tragedy I—entered the car, and the train moved on. We passed through a country where all things seemed to grow in wild luxuriance without much apparent cultivation.

In due season we reached Naples, and I was inhaling the lava-dust, and the cool breezes of the beautiful blue bay were blowing upon me. Truly this is the most pie-

turesque of all the cities I have seen. It is ten times fuller of life than Rome, but then you know Rome is *Rome*, and although its streets are not so full of *living* pictures as those of Naples, it does contain such gems as are worth a long travel to see. Now let us take a stroll into and about this curious city of lava-dust and bay breezes.

First, a look out of the window. Our hotel is named after the illustrious father of our country, Washington, and it is situated right on the bay. At my feet is the most beautiful bay, whose waters are coming in whispering some adventure made the night before out in the sea, which stretches out to the right as far as the eye can reach. Across from us stands out against the horizon the dim outlines of the Island of Capri. Now to the left, following the magnificent curve of the bay, over the housetops of the noisy city, and we see Pompeii in the distance; then up and lo! Vesuvius belching forth her clouds of vapor, and sending them across the valleys and the neighboring peaks without rest. What a variety! Would you, yourself, see the shadow of the substance? You shall. But first a walk; and woe betide you if you attempt to walk in Naples. Ere you have paced a hundred yards you are beset by a drove of hackmen, who fight and scramble with each other for a word with you. And here are all grades of conveyances, and all sorts of teams. The city is apparently built on the upheavals of some earthquake, or the mounds of debris of some volcanic eruption. The streets are very narrow, and the buildings very high, and at each window is a balcony. Really one must conclude that the average Neapolitan would rather do without water than "go short" on a balcony. As to water, there is the "beautiful blue bay," but what would the bay be without a balcony on which to sit and enjoy it? Water is useless any way, for the lava-dust flies constantly, and what is the necessity of washing it off? Labor lost. On these balconies the people seem to live. You may see them seated there at all sorts of work. The party in story No. 13 sits and peels his melons, and drops his rinds down upon the head of the man in No. 12, and he in turn out of pure revenge hurls them down upon

No. 11, and so on. The man who dwells upon the ground floor is the poorest off of all, for he has no balcony. He moves his work-bench out upon the pavement, and gets a fuller share of lava-dust, and of melon-rinds. At each floor, in season, are hung great bunches of green melons and red peppers to ripen in the sun. They look very pretty, and break up the dull monotony of the balconies. The street cries of Naples attract one first. Almost every one who has anything to sell or give away-the hackmen, the donkey-drivers-all seem to demonstrate by the word of a very loud mouth. They all talk in Italics. One can see more curious things here than in any other Italian city doubtless, but alas! I dare not attempt to tell you of them. It has been better done by better men in books of travel.

One of the main objects of interest here is the National Museum, but having seen so many other collections, it was tedious to me until I came to the department devoted to the relics of Pompeii. But as we shall go to Pompeii together, let us wait for a few words concerning them. In the national collection are some admirable paintings and sculpture, enough to occupy one delightfully for a week. Next to this in interest is the old monastery of San Martino, which is situated on an eminence overlooking the city. It was a terrifically hot, dusty climb to reach it via the spiral roadway, but we were well rewarded for our pains. The building is a very rich one. The cloisters the most suberb of any I have seen, sixty marble Doric columns supporting them. The interior of the monastery is adorned with fine pictures, the "Descent from the Cross," by Spagnoletto, being the gem. The sculpture and the marble mosaic pavement are extremely rich, excelling in style anything outside of Florence and Rome. About \$5,000,000 were expended in erecting this grand monument to the fine arts. In the "Treasury" we saw an unusual number of curious relics, including a large number of dressed-up skeletons, with "dead men's bones" in abundance.

But oh! the view from the garden was what enchanted me. Naples lay at our feet, and the shouts from her streets sounded most strangely. Her housetops are mostly

flat, and gardens cover many of them. Beyond was the beautiful bay, dotted with sails in all directions, far out to sea. Opposite us stood out Capri, as if rising from the sea, and to the left wondrous Vesuvius, steaming away and looking promising for the morrow. The sleepy Apennines lifted up their gray heads in the distance, and between us a hundred and one suburban cities and villages. All this we saw from one of the balconies of the monastery. A photographer was there too, and being a German I was able to converse with him. He was an employé of Mr. G. Sommer, of Naples, and I at once determined on having this grand scene pictured for the readers of the Philadelphia Photographer, whom, be assured, I wished for one and all, whenever I saw any of the wondrous beauties of nature and of art, such as I have been privileged to feast upon during the past few weeks; and, my readers, if you will turn to "our picture" this month, you will have an idea of what a grand view I witnessed on this happy afternoon. The negatives were put at my service, and the prints made in Naples by Mr. Sommer, who preferred to print them himself. I found our German friend working under considerable difficulty. I asked him to show me some of his negatives, which he willingly did. "These," he said, pointing to quite a number which were leaning against one of the grand old columns of the cloisters, "are failures." What! all made to-day? I asked. "Yes," he replied. I suggested that he surely could not have a more desirable day than this; but he showed me his camera box and his tent, and then I began to understand his failures, for they were poor contraptions. I think if the American Optical Company would open a branch at Naples, that there would be less of bad negatives made. I found nothing peculiar about the working of this man. He coated his plates with collodion, developed with iron, fixed with hypo, and fogged a great many of his plates. He was not a clean, careful worker, but he did get an occasional clean, good plate, as our picture witnesses, for he couldn't help it. He was a cheerful fellow and an obliging one, and his lunch of figs and bread and wine were placed at my service.

As in Venice and Rome, and in fact all of these old cities, photography is largely practiced, for every traveller wishes to carry away the shadows of the things which he has seen in these curious places. In Naples, the largest producer is Mr. Sommer, and some of his results show that he does not rely alone upon our German friend of the monastery to make his negatives. Sommer has a very extensive salesroom on one of the principal streets, where a very fine display is made, but his manufactory, so to speak, is in the Monte de Dio, and well repaid a visit. The establishment is a very extensive one, and is supplied with all the necessities for making excellent results in any quantity. One feels somewhat disappointed in visiting these places, to find matters worked so much similar to our own large photographic establishments. Photography is photography the same everywhere, more or less, but in America it is, without boasting, surely ahead in many respects.

From the monastery one day we drove to Puteoli, the ancient city where St. Paul found refuge after his shipwreck, and where still stands the ruins of the ancient temple of Neptune, and the Temple of Serapis, first discovered A.D. 1538. The old amphitheatre, too, we wandered through and through, where Nero once held his gladiatorial exhibitions. The old town itself is a most curious one, and the populace as curious. I wish I had a picture for you of one of the old fountains, surrounded as I saw it by a hundred or more water-bearers with their urns on their heads and shoulders.



A wicked, half-naked Italian.

Near here is the still active volcano of Solfatara, downinto whose crater crept to its mouth, where the dreadful fire belching forth with a thundering noise more fearful than a score of fog-horns, and where a stick

poked into the hot scoriæ would cause the flame to belch forth in a hundred places. A wicked, half-naked Italian threw a

heavy stone upon the earth, and intimated that unless we gave him some money he would knock a hole clean through (which would have been easy, for the earth sounded very thin there), and send us to "l'diable." There has been "a coolness" between us ever since. I was glad to get away from the sulphurous place, but I was also glad to see a volcano in such beautiful operation, though mild to what it has been. All around us hot streams of alum and sulphur were running down the sides of the mountain.

At evening we found the drive back to Naples, along the bay, a most fascinating one. On the way we passed through the Grotto of Posilipo, a strange sort of a tunnel, through an upheaval of matter, doubtless from some ancient volcano. Along the street San Lucia next, which is in reality the quay along the bay, where Neapolitan life is seen to perfection. Oh for the camera! Women and children, gross and by the gross. Sailors from all parts of the South and East; ships from the same; here and there a group of market people, with their wares spread upon the ground, dozing as they awaited their patrons—a motley scene indeed. It cost us something to get through it, for we were besieged by beggars of all ages and grades. The usual share of lava-dust, and the breezes off the "beautiful blue bay," are enjoyed here by these lazy creatures. They are free to all. "Do they ever wash the dirt off?" Sooner would an Egyptian wash in holy Nile water, than a loyal Italian desecrate his "beautiful blue bay," by taking any portion of it to wash. in. Volcanoes and earthquakes, never!

Our ride up Vesuvius was a most eventful one. We mounted our ponies at Pompeii one morning early, and through the dusty villages and long, walled roads and fig orchards and vineyards, we went, until nearly half way up. My pony was small, and he sank nearly a foot into the lavadust or scoriæ. My legs being long, my feet scooped up this scoriæ, and we had a dusty time of it. The road was a winding, ortuous one.

My strange little pony could not be persuaded to make any short cuts across the curves. He seemed to have some superstitious dread of leaving the winding track, and despite all my persuasive powers, he walked every turn and every inch. Sometimes he would walk his head bump into a bank of scoriæ, and then turn about, and not until then. If I beat him, or tried to guide him aside, he would stop. I once got off to argue the matter with him, but it was useless. I persuaded and pounded and pulled him, but he won. I concluded that



I once got off to argue the matter with him, but it was useless.

he, having been there before, must know the way best, and that it would be dangerous to persuade him further, so I remounted and we proceeded. As we did so the interest deepened. We now reached a sort of a hollow, whence the ascent was so precipitous the ponies could not go further. The rest of the clamber was made on foot, and a hard one it was. The great mass of vapor from the crater fell upon us, hid us from each other, and almost stifled us with its sulphurous breath. The scoriæ grew hotter and hotter, so that it was impossible to stand in any one place for a moment without burning. All around us were little furnaces of fire, wherein we roasted eggs, or brought forth masses of molten matter with our sticks. A step or two more and we are upon the very verge of the crater. What an awful sight! The mouth of the crater is one mile in circumference. I went around it, and then down it, perhaps 250 feet, where I could see its awful boiling and seething to my heart's content. The heated vapor as it comes forth, breaks up into won-

drously shaped masses, and travels across the valleys; the inner surface of the crater is clad with shining crystals of sulphur, and salts of various kinds, looking like an autumn field of golden rod and eardinal flower, but the depths are shut in by the seething mass of vapor. I dare not go down further at the peril of my life. I have already "gone too far," cries the guide, but I came here for this. Oh, if those clouds would only lift and let me see further down! Hardly was the wish expressed ere a favorable current of wind blew the steam cloud aside, and I trembled at what I saw-quite 1000 feet down-at least as far as the eye could reach, for beyond the black depths no one could see. It was glorious. Painted peaks of rocks reared themselves in all directions very high; huge fissures and caverns here and there, dark and dreadful, along whose sides huge masses of debris were piled; the sides of the crater all covered with the various colored salts, and the steam and vapor oozing forth in a hundred places, made one feel as when from some height overlooking a busy manufacturing city. And all this amid the most intense quiet. Not a sound as much as would be made by a one-horse engine, could be heard amid this awful seene of fire and steam. In this I was disappointed, for I thought Vesuvius always made a noise. The heat became intense, and the sulphurous vapor overcoming, so we made our departure, and in hot scoriæ up to our knees we waded, or rather precipitated ourselves back to our ponies. Mounting them again we began the descent. Our ascent was made much of the way through cloud. Now the clouds were gone, and we had a glorious view, as you can understand by referring to our picture, and then imagining yourself descending the grand old mountain. Naples, bay and all, Capri, Pompeii, Hereulaneum, and the hundred other towns squatted in the richly cultivated valley, made up a grand pieture. At our right were great walls of lava; on the left the neighboring mountains, whose deep-searred sides gave proof that they too had suffered from battle with the subterranean elements. The jaunt down was one of hard and dirty labor. My faithful pony made all the curves religiously, and I was glad enough to leave his back, and to go back to Naples, and dream of what I had seen, for I soon courted sleep on reaching my hotel. I of course do not believe in dreams, but as a portion of one has an important photographic bearing, it may be told here. It clears up all mystery that



The origin of the tripod.

may be connected with the origin of the photographic tripod, and ran thus: The Devil, who had heard that Vesuvius not only rivalled him in the overpowering influence of its sulphurous fumes, but also that the crater was ten times more to be feared

than his most heated chamber, one day at dusk paid it a visit. He walked proudly up to the crater, tail in air, to the very verge, when, beholding its awful depths he fainted, dropped his tail to the earth, fell back upon it for support, and thus supplied the missing idea for the third leg of the tripod. Believe it or not as you will.

Our day at Pompeii was one never to be forgotten. No cemetery ever made such an impression upon me as this "eity of the dead." In a cemetery we see the graves of the departed, and learn of their good works from their monuments. Here are the monuments of the dead by their own hands erected, many of them looking as if the work had been left but yesterday. Here are straight but narrow streets, paved in such substantial manner over 2000 years ago as should shame our own highway departments-as solid and firm as the day they were laid; beautiful monuments, in better order than many modern ones; palaces, halls, shops, frescoes, statuary, fountains, mills, wine cellars, temples, amphitheatres, baths, magnificent columns, all here standing as they did on that frightful night, when the inhabitants left them to be eovered up by the solid storm from the bowels of Vesuvius. All about us we may yet see portions of the fated city, still protruding from the hills of scoriæ. In the museum here and at Naples, we see myriads of the articles which have been exhumed. How wonderfully like some of our own are the surgical instruments, and cooking and garden utensils; as delicate in form and shape, and as beautifully made. Although many of them have been much decayed and disfigured by their sleep under the scorize they are still beautiful and interesting. No



They are still beautiful and interesting.

photographic apparatus was found that I could see, though something resembling it appears in the drawing of some of these Pompeian antiquities. The photographs and lantern slides, and books descriptive of this wondrous city are so plentiful, that the interested must be familiar with them. Photographs are sold in great quantities in the streets of ancient Pompeii now. The interest of our visit here was added to by a sudden and very violent thunder shower, coming down upon us from Vesuvius, and as I hovered under one of the arches in the Temple of Fortune, and saw the tourists scamper by, I thought of the consternation which must have been caused by the storm of solid rock and sand and mud which came down when Pompeii was destroyed in her glory. Here one desires to sit and read again the "Last Days of Pompeii," by Lord Lytton, and when evening comes to creep stealthily without the gates, up the old mountain-side to the cavern home of the old Saga, and hold a confab with her. Would you interview her now? Perhaps there is some query that even Sphynx, or the oft-perplexed editor of your favorite photographic magazine cannot answer. Come then. We have no faith in witches or fortune-tellers, but the time is ours; let us go to the old Saga, and peep into her fiery cavern. Look you in the rear sharply and what do you see? The "blackness of darkness." Lo! Now, and a flaming picture like a lantern slide, lit up most intensely, covered with ancient hieroglyphics. What does it mean? The old crone says, "Think what you, as a photographer, most desire to know, and the

rebus will be explained to you" How quickly the meaning flashes upon you! Sliding Plate-holder invented plus twelve



Valuable if you can establish the fact.

years before S. Wing's patent. There is testimony for you which will be valuable if you can establish the fact.

And now I must turn homeward, for I have much to do ere the day of my sailing arrives. Had I two weeks more I should master the Pyramids of Egypt, Cairo, Alexandria, &c., for good company is offered me here, but I must turn back. The farthest point of my journey is reached. After a day or two more at Naples among the pictures, and the artists, and the people, and then I go. Oil paintings here may be bought by the acre, and I thus learned the history of some of the "works of the old masters," which I have seen in America. All the Italian collections are surrounded by copyists constantly. These men will wait upon you at your hotel, and sell you very excellent copies, at very fair rates, and as the originals are not for sale I must be content with Oh curious, beautiful, oriental, dirty Naples! With what mixed sorrow and gladness I left it and its figs! Here Americans are much envied, for do they not come from the "Great Republic"? Along the quays lie hundreds of lazy Neapolitans, who seldom get up except when an American vessel sails up the bay, and then they roll over on one elbow, or if they have a balcony, they come out and cheer the stars and stripes, "the flag of the Great Republic." They love America, and would gladly emigrate, but the enervating influence of the dust of Vesuvius, and the breezes of the beautiful blue bay, have still greater fascination for them. My guide was named Michael Angelo, good, faithful man that he was, content to earn eight francs per day. As much as he is like his famed and famous namesake, so is the Neapolitan of to-day like the Neapolitan of old, to whose culture and taste and liberality we owe so very

From Naples back to Rome again, and thence straight forward, via Lake Maggi-

ore, to the Alps. Oh what an intensely beautiful sail up this lake, past the terraced and castled Borromean Isles, stopping every mile or two at some picturesque village, with the most romantic scenery all around!

I disembarked at Magadino, at the head of Lake Maggiore, and slept my last sleep on Italian soil. After all, beautiful as it is, Italy, "sunny" Italy, has undoubtedly obtained its prestige for "sunshine, luxurious growth, bluesky, and sunsets," from Englishmen who have never visited America. To those who come from the weeping, foggy British Isles, Italy must indeed appear most beautiful and freshing. Toan American it is inferior, so far as climate is concerned,

and as to comfort in travelling and living, "The Great Republic forever!"

Next month a scramble in the Alps, together with a visit to some interesting photographic establishments, including M. Braun's at Dornach.

(To be continued.)

Charles W. Hearn's Formulæ.

I HAVE very frequently been asked for my formulæ for printing, and for the con-

venience of those who may wish to know, I will here give it "in a nutshell."



They come out and cheer the "Stars and Stripes," the flag of the Great Republic.

SILVER BATH.

I place a sufficient quantity of the N.P.A. Extra Brilliant Dresden Pink Paper for the next day's use, over night in a close box, on the bottom of which I place a tray of fresh water. This dampens the surface of the paper, and makes it take very readily to the solution when floated.

Make up a solution as follows:

Make the bath quite acid with nitric acid,

C. P., and then perfectly neutral by the addition of liq. ammonia. Place a lump of camphor in the solution, and it will always prevent blistering. Float the paper sixty seconds, and draw it over a smooth glass rod. Dry quickly, and fume ten minutes. Print about two shades dark.

ACIDIFYING SOLUTION.

Lukewarm Water, . . 1 gallon. Acetic Acid, No. 8, . . . ½ ounce.

Acidize fifteen minutes; keep moving all the prints constantly. Pour off this water and save it, also the next rinsing water. Wash in another fresh bath of water five minutes, and they are ready for toning.

TONING BATH.

Acetate of Soda, . . . 15 grains.
Chloride of Soda, . . . 10 "
Chloride of Gold, . . 1 grain.
Filtered Rain-water, . . 15 ounces.

This bath ought to be a week old for stock, and every day, about two hours before toning, make up in the same proportion as above a fresh lot of sixteen ounces, and mix the two together. The prints will tone in about ten minutes, which is plenty quick enough for me. Tone a little purple. Place the prints, as soon as toned, in a bath made as follows:

Sat. Sol. Alum, . . . 16 ounces. Water, . . . 1 gallon.

Remove the prints, when ready for fixing, from this bath into a hypo bath made as given below:

Fix fifteen minutes, weaken one-half, and fix five minutes longer, and then weaken to about as near as you can calculate the density of the salt solution, which is made as follows:

Chloride of Soda, . . 1 ounce. Water, . . . 1 gallon.

Let the prints remain in here about ten minutes, and then weaken this to about one-half of its former density, and let them remain five minutes longer, and now finally let this salt-water bath be weakened to the density of fresh water, and then remove them to the washing-tank, and wash them well before you leave them for the night, as this is very important. Three or four hours' washing is sufficient, when the prints are soaked in a salt-water bath after fixing.

Rinse the next morning in pure filtered rain-water, so as to remove all iron-rust from the prints, and mount damp.

Yours, fraternally,

CHARLES W. HEARN,

Author of The Practical Printer.

GERMAN CORRESPONDENCE.

The Chicago Accident—Action of Dry and Damp Atmospheres on Photography—Action of Hyposulphite in the Developer—Impurities in the Developer—Sulphurous Acid as a Substitute for Hypo—Intensifying with Permanganate of Potassium—The Fall of Portrait Photographers.

Not without anxiety do we look forward to further news from America. The telegraph has notified us that during the Exhibition a great conflagration has devastated the city. We always follow with much interest the proceedings of the American Photographic Association, and should regret it very much if its deliberations had been disturbed by this accident; still more do we mourn that the ill-fated city has for the second time been visited by such a calamity.

We have had lately such an extraordinary dry atmosphere, something unusual in the otherwise eternally wet atmosphere of Europe. For weeks we have had hardly a trace of rain, and this produces phenomena which affect photography injuriously, particularly with long exposure of plates and on the printing paper. Curious enough the Liehtdruck is also affected by it; the gelatin plate from which the print is made requires always a certain degree of moisture, and the prints which are made in the damp atmosphere of autumn are much handsomer than those made now. But aside from these matters a dry atmosphere generally is advantageous to photography. In the always damp and hot atmosphere of Aden, I have met with numberless obstacles; the

plates could only be cleaned with difficulty; after a few hours they attracted moisture from the atmosphere, which required an extra polishing. I could expose them for twenty minutes, thanks to the damp atmosphere, but it took an enormously long time before a plate became sufficiently dry for varnishing, and the varnish attracted moisture from the atmosphere and became cloudy. The varnish film so obtained had very little stability; after a few months it cracked, and the plates which I took at that time are now, all of them, destroyed. take dry plates in such an atmosphere is almost impossible, simply because the dry plates would not dry. A preliminary coating with albumen was also out of place, as in a very short time small fungi would show themselves, which produced spots. Under these circumstances I prefer to work in a dry atmosphere, although here, too, we meet with plenty of difficulties.

Mr. Schaarwachter reported lately a rather curious annoyance in intensifying; the plate became suddenly dark, the shadows showed a blue-black fog, the whole picture changed and became a positive. This is generally ascribed to deficient pyrogallic acid, or a want of acidity in the developer. of these causes operated here, for the intensifier did not change its action, after fresh pyrogallic acid and glacial acetic acid had been added; finally Mr. Schaarwachter had to abandon the ordinary method of intensifying, and strengthened the plates after they had been fixed and washed. Pyrogallic acid and silver did not act injuriously. Only after a long search the cause of the above mishap was discovered; a small quantity of hypo solution had found its way into the developer. In fact any one can produce this action by adding a small quantity of hypoto the developer. Similar results are brought about if we add sulphurous (SO2) acid to the developer; formerly sulphate of iron was frequently contaminated with this substance, and the consequence was that the picture became foggy over its whole surface. I remember an instance which happened ten years ago, when a photographer in Java (India) received a supply of such sulphate from here, and who in consequence had to lie idle for six months until he could receive a fresh supply. Similar faults have afterwards been unjustly ascribed to the iron, while in fact the acetic acid was to blame. I received from Hamburg a sample of acetic acid, which, when employed as developer, produced fog. This acetic acid was made from pyroligneous spirit. Since that time I do not use any acetic acid in the developer, but take simply two to three per cent. of alcohol and about one cubic centimetre of sulphuric acid to one litre of developer. The percentage of alcohol has, of course, to be increased when the bath contains much alcohol, and vice versā.

Although I have mentioned that sulphurous acid acts injuriously in the developer, I must not omit to mention that this body is in other respects of great advantage to the photographer. Until recently the rags which are used for making paper and cardboard have been bleached with chlorine, and the last traces were removed with hypo; a small quantity of hypo remained, however, in the paper, which was apt to turn the picture yellow. The sulphite of soda does not have these disadvantages; it absorbs likewise the chlorine, and is in this respect a perfect substitute for hypo. The sulphite of soda was formerly very expensive, but the price has now been reduced so much that paper-makers can use it, and we will hope that we will get rid of an unpleasant trouble with our mounts. tempts have also been made here to bleach the mounts with permanganate of potash; this does very well, the color is destroyed, but the paper itself is colored brown by precipitated oxide of manganese; the brown color is removed by sulphurous acid, when the mass becomes brilliantly white.

I have lately tried again to use permanganate for intensifying. When we coat a fixed and washed negative plate with permanganate of potash the plate becomes of a yellow-brown color; this color is very opaque for chemical rays, and this recommends it for intensifying the negatives of drawings, &c. A diluted solution of permanganate 1 to 200 is employed at first, afterwards we take a concentrated one of the strength 1 to 100. The permanganate is decidedly preferable to chloride of mercury, iodide, and sulphide of potassium, for the

latter has a very unpleasant smell. Iodine and bichloride of mercury give pictures of uncertain keeping qualities, and sometimes the intensification is lost, i. e, instead of the dark compounds light chloride and iodide of silver are formed. Permanganate has none of these drawbacks.

A few days ago I read in the *Photographischen Notizen* a letter of a portrait photographer, which I consider worthy of recital.

"We portrait photographers are miserable beings," said an old colleague to me, while talking about the joys and sorrows of our business. "The joys are few; I believe the only one is the pleasure of earning money. I feel like laughing when I read a description of the pleasure of having made a satisfactory picture; a picture which is the delight of the whole family, and the photographer is overwhelmed with applause. I am not vain; the least am I vain of my pictures. How often does it happen that I devote all my care, my attention, my knowledge and understanding of art to the production of a perfect picture. An elegant young damsel is posed, lighted a la Rembrandt, and my first operator and myself do not rest until a perfect negative has been obtained. We are both delighted, we are proud of our work, the print turns out magnificent, but what is the result? The beauty throws the picture at my feet. She had been the night before to a ball, was tired, and poor me did not know that. I could not tell whether that was her ordinary expression, or whether her beauty was still more radiant when she had not been to a ball the previous night. This has happened to me often. Sometimes I can find out the reasons why my pictures do not please; at others, not. Then it turns out that he or she had a toothache, or quarrelled with his better half, or lost a lawsuit. Again, others had to wait too long, and became angry. And in the face of such discord the noble art of photography creates pictures, but not expressions.

"On the other hand, I know instances where the pictures were absolute failures. There was an unruly model, which could not be posed or could not sit steady, or the light was bad, or the devil played havoc with the bath or the chemicals; in short,

the pictures were shameful. When I showed these abortions to my customers, and wanted them to sit a second time, what was the result? The customer was delighted, declared the picture the finest that was ever made, considered my objection unfounded, and it is horrible to relate, but true, such customers have recommended me all around. I should blush if I saw those pictures hanging on the walls, provided that I was still capable of blushing, but I have become indifferent to such things. Praise and blame run off from me like the rain from a duck. Every photographer has to be prepared to hear that the finest picture is found horrible, and he must not think that the public is malicious. The portrait painter is better off than we; he really becomes acquainted with his model, for he occupies himself with his sitter longer than a quarter of an hour. Unfortunately we have not the time for that, and this trouble cannot be helped.

"A friend and colleague of mine once photographed my wife and little boy. It was a splendid picture, but the boy had his tedious hour, and looked in the picture so stupid and sleepy, while in reality he is just the reverse. If I should have paid for the picture, I would have rejected it, in spite of all its brilliancy, sharpness, light effects, &c. This happens to us often. We poor portrait photographers."

Yours, very truly,
DR. VOGEL.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

At this time the two subjects which principally occupy the minds of Parisian photographers, are the Photographic Exposition and Lambertypie. The list of awards awarded on the occasion of the Exhibition has just been published. It embraces seventy-four names, that is to say, forty-six medals and twenty-eight honorable mentions; now, as there are only eighty-four exhibitors, the jury has only excluded ten of them. Far from criticizing the liberality with which it has acted, I think that it might have excluded no one; for all the

works sent have real merit, if it only is in their execution. It would have been curious to see a collective medal given to the whole exhibition, as in time of war a cross of honor is given to a whole regiment when the majority of the soldiers which comprise it have signally distinguished themselves. I am persuaded that no one (especially among the exhibitors) would have protested against this act of justice.

In regard to Lambertypie, it causes in every atelier a veritable excitement! Every one wishes to learn the secret of this process which gives such splendid results, and to acquire the right of working it. In the provinces, and especially in the large towns, each photographer of any note tries to be the first to subscribe, in order to obtain the exclusive right for his town, and to thus prevent the competition of his co-workers in the same locality. What is most curious is, that after having acquired a knowledge of the operations, each new purchaser of the right, instead of exclaiming, as is too often the case, "Is that all!" is filled with enthusiasm, and becomes one of the warmest advocates of the new method. It is the first time, perhaps, after the making known of a new invention, that we do not hear those who profit by it cry out, "I have been doing this for a long time!"

Neo-olio painting is also making its way, and now we have a new style of portrait, of which Mr. Thomas Sutton has given me the earliest information, and which furnishes an ingenious and useful application to Mr. Putteman's process by combining it with carbon photography. Mr. Sutton's communication may be thus condensed. A sheet of paper, prepared by the carbon process, is sensitized (even in full light) in a highly concentrated solution of bichromate of potash. It is then hung up in the dark to dry; when dry it is exposed as usual under a negative. The pose is much shorter than for albumenized paper sensitized with silver; it is about one-third less. The plate, which is to be used for the final support of this print, is put in a dish filled with cold water, and the paper placed in contact with it under the water on the side of the image for a few seconds; then the plate, to which adheres the sheet of paper, is removed from

the bath, and a roller of india-rubber is passed over it in order to render the contact more complete; after a few minutes the plate and the image that it carries are placed in a dish filled with hot water, the paper detaches itself, and leaves the carbon image adhering to the plate. It now has to be transformed into a painting; to effect this, the simplest way is to make use of the colors prepared for the neo-olio painting, which are applied as I have said in one of my previous letters; but it is also possible to use opaque oil colors, which are sold in metallic tubes for painters; but care must be taken to give them the proper consistency by diluting them with a little varnish. They should be thick enough to form a background for the print. Mr. Sutton thinks that the mode of applying colors to the back of a transparent portrait, or one rendered so, is the only one which is truly correct; for in this manner it is very evident that the painting in no wise alters the likeness, since the photographic image remains unaltered on the opposite side.

It is easy to understand that the colored image thus executed on glass has all the charm of colored enamels, and all their solidity, without requiring as they do a series of difficult manipulations and special apparatus; by the way, Mr Sutton designates this new kind of portrait by the name of "Colored Carbon Enamel."

Mr. Rodrigues, director of the photographic establishment of the government of Portugal, at Lisbon, has sent to the Photographic Exhibition a great number of reproductions of maps, plans, and drawings, for which he has received a medal. All these works, printed with fatty inks, are obtained by a process of photo-lithography, which was made known at the last meeting of the Society. It does not differ from the other methods employed from the time of Poitevin to that of Geymet & Alker, except by the substitution of a sheet of tinfoil for a sheet of paper, upon which Poitevin and some others obtained the first print destined to be transferred to the stone. This very thin sheet of foil is first polished by pressure upon a finely grained stone; then, after having been wet, it is placed upon a zinc plate, perfectly flat and highly polished,

and is cleaned by means of a fine tuft soaked in a solution of potash or soda at 10 per cent.; if it is very dirty, add a little chalk to this solution. Now wash carefully, and spread the sensitive coating on the foil. This is composed of a solution of gelatin (40 grammes for 500 of water), to which is to be added a solution of bichromate of potash (20 grammes for 500 of water). This mixture is spread with a brush. Desiccation may be hastened by heating the zinc plate over gas, or in a dry-house. When the surface of the foil is sufficiently dry, the sheet is removed from its support, and evaporation is produced by heating the small quantity of water that it contains; it is then fit for use. For that it is spread on the negative, which is placed in an ordinary printing-frame, and exposed from five to twelve minutes.

Before inking the print, it is plunged into a bath of cold water, the image top up, and whilst damp it is placed on a lithographic stone, taking care to avoid creases. A flannel roller is then passed over the surface, then a printing roller very evenly coated with a mixture of three parts of transfer ink for one part of printing ink. This is the most difficult operation and requires a practiced hand. The print is then allowed to rest for two hours before proceeding to a second inking; it is then washed in very pure water with a soft sponge. It is then lightly wiped, and detaching the sheet of foil, it is hung up to dry. When desiccation is complete the transfer is made as in ordinary lithography.

Mr. Rodrigues finds many advantages in this process, and the sheets of foil that he exhibited show very sharp images, and appear to have safely withstood all the necessary manipulations.

A high degree of praise was given to photography by Mr. Janssen, at the last meeting of the Academy of Sciences. The near transit of Venus over the sun (or rather between the earth and the sun), has been for the last two years an object of great importance for our savants; owing to considerable efforts, notwithstanding the perturbation caused by our recent disasters, it has been possible to unite all the elements necessary for the observation of this important phenomenon; a numerous and dis-

tinguished body of observers has been formed, and great care has been exercised in fixing the different stations, which each of those who compose it shall occupy on the globe, and in less than two years (and that was what was most difficult), it has been possible to make special apparatus of exceptional precision, which is to be used on this occasion. But photographic instruments had been, if not entirely neglected, treated at least with a certain amount of indifference. Happily one of our principal astronomers, Mr. Janssen, had given this subject serious attention, and at the meeting of the Academy, to which I have above alluded, presented to his colleagues admirable photographs of the sun, obtained by means of an instrument which he has just had constructed, and which he expects to shortly make use of in Japan. In making this presentation he dwelt upon the importance of the applications of photography to astronomy. Among these applications those which refer to the sun occupy, without doubt, in his opinion, the most important place, on account of the immense value of the daily and faithful pictures of the solar surface, the seat of phenomena, so great, so rapid, so mysterious, and which, nevertheless, embrace the secrets of the physical nature of our system. In consideration of the number and importance of the results which these studies would give, the eminent astronomer expressed his astonishment that so fertile a branch of astronomy should have thus been neglected by us; he reminded his hearers that a long time ago his illustrious co-worker, Mr. Fave, called the attention of astronomers to the importance and future of these applications of photography. In fact, as far back as 1858, Mr. Faye presented to the Academy a magnificent photograph of the eclipse of March 15th, obtained by an ordinary photographer, Mr. Quinet, with the large telescope of Porro; notwithstanding this, it is in foreign countries that celestial photography has since been almost exclusively cultivated.

In England, Mr. Warren de la Rue, gave it great impulse; his remarkable labors on the moon procured for him the great prize of Labande, given to him by

our Academy. He organized at Kew a corps of solar photographers, which has given to astronomy a precious series of documents; since then America, Germany, Russia, Italy, &c., have in their turn entered this new path. Mr. Janssen recalled to notice the admiration which had been excited in France, at the appearance of the marvellous photographs of the moon, taken by Mr. Rutherfurd, of New York, of which a few specimens, now exhibited at the Palace of Industry, still cause the astonishment of visitors.

The observation of the transit of Venus is, for Mr. Janssen, an occasion to utilize this fertile application of photography; so that, although he takes with him one of the instruments given by the commission to its delegates, he wishes to execute prints which are more easy to compare with those of observers of other nations, all of whom have adopted the principle of large images; it was, therefore, necessary for him to create a special instrument, whose objective has an opening of five inches, and a focus of two metres. Thus provided, there is good ground for hoping that Mr. Janssen will obtain results which will confer honor on France, and render important service to science.

The French Photographic Society has just held its last meeting prior to vacation. At this meeting, Mr. Rousselon made known a process which he successfully uses, to remove the varnish and the negative films from plates which have been used. First dissolve 8 grammes (123 grains) of caustic potash, and 4 decigrammes (6 grains) of carbonate of potash, in 170 centilitres (57 fluid ounces) of distilled water, then pour on this solution 500 centilitres (169 fluid ounces) of alcohol, at 40°. The shellac varnish disappears easily by means of the liquid; some varnishes require a little more potash. When the negative is completely rid of the varnish, it is washed and plunged for a minute in distilled water, containing two per cent. of hydrochloric acid; it is withdrawn as soon as it is perceived that one of the corners of the collodion rises; it is then washed and drained. When the negative is completely dry it is held over the vapor of water until it is entirely covered with small drops,

then is spread upon it a slight coating of gelatin, prepared in the following manner: Take 100 grammes (34 troy ounces) of gelatin, and dissolve in 700 grammes (22 troy ounces) of distilled water, and add (in summer) 15 grammes (231 grains) of glycerin (in winter this quantity should be reduced). When the mixture is well dissolved, add 10 centilitres of a solution at 10 per cent. of chrome-alum water, for each 100 grammes (34 troy ounces) of gelatin; the negative is then allowed to dry thoroughly, after which it is coated with normal collodion prepared with castor oil; it is then again allowed to dry, after which the border around the plate is cut, and the film carrying the image is removed.

PHOTOGRAPHY IN ITALY.

MESAGNE, May 31st, 1874.

MY DEAR SIR:

I am so grateful to you for the kindness with which you were pleased to accept my first letter, that I cannot neglect writing to you this second one. I am very sorry that my continued occupations do not allow me to undertake with you, sir, a monthly and regular correspondence; but I will, nevertheless, assemble a little better all interesting matters which may come to my knowledge, and refer them to you as soon as possible.

Continuing, therefore, the short relation I undertook in my former letter, concerning our most valiant men devoted to improving the photographic art, I must mention to you Prof. Bortinette, of Padua, whose learned and constant investigations on indelible photography with colored powders instead of with greasy inks are, wherever known, deservedly esteemed. We have received from the Professor proofs of some experiments he has obtained by the aniline colors, and he has also acquainted us with several curious observations on their prerogatives, relatively to the substances on which they are adapted. By resuming such observations, the wise Professor assured us once more that the permanency of aniline colors on animal filaments is greater than on vegetable. The continual trials he accomplishes by the very interesting greasy ink print process, and the disinterestedness with which he directly published them, led already sundry persons in Italy to very fortunate results. He lately deigned himself to reveal a previous modification of a similar process. Here are the words by which he expresses himself:

"I smear a very clean glass with ox-gall (fiel de beuf), which I preserve for a very long time, and add to it some drops of creasote; afterwards I rub the surface with a woollen cloth, so that the gall will uniformly enlarge upon it, and streaks will not come out. At that time I softly warm the glass until the gall will be dry, and while still warm I put it on a level base. I prepare in advance a solution of—

"When the gelatin is perfectly dissolved the liquid is to be strained through a linen cloth, and, while still warm, I pour it on the tepid glass smeared with gall. If the solution does not extend itself everywhere, I force it to do so by means of a paper tube. Then I take a white and sufficiently strong sheet of paper and put it into a dish full of water until it is entirely wet; afterwards I dry it between blotting-paper, and delicately lean it against the gelatin surface, taking care that bubbles do not form, and that the gelatin does not go on the wrong side of the sheet. I leave everything quietly till the following day, and if the atmosphere be very damp the paper will pull up by itself; otherwise I raise it up softly with the blade of a penknife. Its surface therefore will become glittering, and may be indefinitely preserved. When I want to use it I wash it in a bichromate of potash solution at 3 per cent., and when it has become very dry I expose it under a negative. When the picture is marked with all details, I plunge it into a solution of-

"At that time the whole surface of the paper becomes of a brick-red color, from the formation of chromate of silver. Then

I wash such a transformed picture with pure water, and pour on it some liquid and almost diluted ammonia. Under this reaction the red color will disappear (the chromate of silver is dissolved by ammonia), and the resulting picture is of an excessively pale-green color, caused by the oxide of chrome. After such a mutation I wash the paper with water, and put the back of it on a well-glossed, hard wooden block, fixing it by means of small nails. After that the superfluity of water must be taken from the surface with a very clean and almost dry sponge, and then I roll the lithographic cylinder upon it. The advantage of such a process, compared with others, consists in the greater disposition of the picture to receive the ink, with no doubt of any mutation in the same picture (inversion of the positive in the negative) caused by the nondecomposed chrome salt, which cannot be totally eliminated. The gelatin, by the alum mixed in the solution, and by the following passage into the bichromate bath, renders itself completely insoluble, and its resistance is increased also by the effect of the silver solution."

I take pleasure in reporting to you some news about another distinguished improver of photography in Italy. He is Mr. Bettini, of Leghorn, whose interesting publications (in the *Rivista*) you have, no doubt, often read. The picture herewith shows a "washing apparatus" of his own invention, which gives the most perfect satisfaction.

A varnished zinc dish, A, contains the pictures destined to be washed, after having been submitted to the hyposulphite's action and a salt-water washing. At ten centimetres from this dish's bottom is placed a horizontal bored plane, on which are settled the pictures. The upper side, D, is composed of a double dish at balance. When the reservoir, E, which is located under the waterspout, is full, it will fall on the repair, F, and sooner tenders the other to receive the water. The motion that consequently follows will singularly help to despoil the pictures from hyposulphite.

I will conclude by submitting to you a means proposed by Prof. Ghisi, of Milan, for diminishing the cause of the breaking of negatives in the enlarging apparatus, and allow to concentrate on them the cone of rays as much as possible. This means consists in the interposition between the condensing lens and the negative of a mica plate, which,

by its anti-diathermal nature, would hinder a superfluous warming without intercepting the passage of the actinic rays.

Yours, very truly,
A. Montagne.

THE NEW BOOK.

It is rare that one has the pleasure of reading a book containing the quantity of real experience and genuine instruction that one may find in the new work, *The Practical Printer*, by Mr. Charles W. Hearn.

The author has been very generous in giving each minute detail in his description of processes, and most faithful in pointing out defects and failures.

What a gain this work is, placed in the hands of a beginner! And where is the "old printer" that cannot learn at least one good point from its pages, or to whose mind it fails

not to recall some of his past failures, and thereby impress them firmly in his thoughts?

The chapter on "Causes of Failures in Albumen and Plain Paper Printing" is fine, and contains every failure (and more,

too) that I could think of, and should be printed in slip form, and hung up in every printing-room. That chapter alone is worth the price of the work.

Having read the book carefully, I must say it is nearer perfect than usual, in its typical character. In the chap-" Fixing ter on Bath and Fixing Prints," page 118, the author says: "Take a two-gallon bottle, place in it about one pound hypo crystals, shake well, and label Sat. Sol. Hypo Soda."

We all know that the quantity above given is very far below the quantity needed, and should have been at least ten pounds, or better still, fill the bottle with crystals, then add the water; for further on he gives the following formula:

 Sat. Sol. Hypo,
 .
 .
 1 ounce.

 Water,
 .
 .
 8 ounces.

 Sat. Sol. Bicarb. of Soda,
 .
 ½ ounce.

Although I use it still stronger, i. e., one pound in five quarts of water, I would not recommend it with the Rives paper. We do not use it, but use Saxe only.

The precautions he gives to avoid trouble in fixing are very accurate, and should be observed by every printer.

The error I have above described must be ascribed to the types, although the author says he is in favor of a weak fixing bath. I cannot see how it could be used as it reads, which would be one pound in sixteen gallons of water. As this is the only error I have seen I thought it best to call attention to it, and save some one future trouble in having unfixed prints.

W. L. SHOEMAKER, With Albert Moore, Solar Printer, Philadelphia.

Mr. Hearn's "Practical Printer."

WE find that we were not mistaken in our idea that there was a necessity for Mr. Hearn's excellent work on photographic printing, nor in our belief that those live photographers who are always making progress would readily purchase copies of it. In proof of this we are glad to say that the first five hundred copies are "on their way rejoicing"—the happy possessors who have made the purchases.

"I really did not think there was so much about photographic printing that I did not know until Mr. Hearn's invaluable book opened my eyes," says one.

"I bought the book on account of your persuasion," says another, "but I did it without feeling the need of it, and the splendidly written book has made me feel my need of it as a constant companion. I shall doubtless soon wear this copy out and want the second edition, for I am sure it will be called for soon."

The author has received several very flattering testimonials as to the value of his book from practical photographers. Among others is a very characteristic one from Mr. John R. Clemons, the manufacturer of the celebrated albumen paper which bears his name, and than whom few people know more about photographic printing and the treatment of photographic paper. Mr. Clemons says:

"Now about that book: you wish to hear my opinion. Well, I am a very candid man in all things, and if I did not like it I would have written you so, but as I have recommended it to all I have met on my journey home, it is sufficient to say I like it. I consider it the best work on printing and toning that has been published, or at least that has come into my hands, and until I see a better one I shall give it the first place. If any one wishes to be helped out of the mud let him read it; but if he wants

to stick there, let him keep his money in his pocket, and stick till doomsday if he likes. If any one buys the book through my recommendation and don't like it, let him pitch into me, for there is nothing the matter with the book; if there is, I have overlooked it. With this exception: you should have given credit for the camphor solution, which, perhaps, you have overlooked. I am willing to correspond with a live man like yourself on printing and toning. I believe you will be able to take the bull by the horns and shake him out until his tail cracks like a whip.

"Give my regards to friend Lamson, and believe me your true friend,

"JOHN R. CLEMONS.

"P. S.—If you can pick enough out of the above that will be of advantage to you, why use it. It is from the heart and is the best."

The following extracts from other letters received by Mr. Hearn speak for themselves:

"I have read it with a great deal of interest, and find it indispensable to the student photographer. It contains so much valuable information on modern photographic printing, that I do most cheerfully recommend its usefulness to the student printer. Its cost is money well laid out.

"Yours, very respectfully,
"C. D. Mosher,
Chicago."

"As printing and toning in all their multitude of effects have been my pride in the art, I obtained a copy of your work, 'The Practical Printer,' and after having examined it thoroughly, in a practical manner, I desire to tell you that it will be of untold value to any printer, and worth more, practically, than a combination of all the volumes and essays on printing which have been published for the advancement of the art I love. I trust sincerely that every photographer in this country may have a copy of 'The Practical Printer.'

"Yours, as ever, fraternally,
"H. J. Rodgers,
Hartford, Conn."

Mr. J. H. Lamson, of Portland, Maine,

Mr. Hearn's employer, writes to us as follows:

"I have carefully examined Mr. C. W. Hearn's book upon photographic printing, and have come to the conclusion that, whatever may be its literary merits, it is truly what it claims to be, a thoroughly practical treatise upon that most important branch of our art, photographic printing.

"Mr. Hearn has been with me over three years as printer and toner, and has ever manifested the greatest interest and enthusiasm in his work, seeming to do his utmost to excel and advance himself continually in his chosen department of our art-science. It seems to me that the merest tyro could make and tone good prints if the simple directions in this book are faithfully followed. Indeed, this volume seems to fill a void in our photographic literature that it has always surprised me was never supplied before.

"Yours truly,
"J. H. LAMSON."

This from his employer must be very gratifying to Mr. Hearn, and it surely is to us as his publishers. But the compliments do not stop here.

In England Mr. Hearn's book has also created a sensation, as the following extracts from the photographic magazines there prove, viz.:

The Photographic News of July 31st makes copious extracts from it, and says:

"Printing has too commonly been regarded amongst photographers as a commonplace and easy operation, which might be relegated to the care of boys and girls, with, perhaps, a little supervision from an experienced person; and the skilled printer who devotes himself solely to that branch of the art is rarely as highly remunerated as the equally skilled operator. If the whole art of printing consisted in producing a moderately accurate impression from a negative, and nothing more, nothing would be more simple and easy. But, properly estimated, the business of the printer is something much higher. The skilled printer must be able to produce, not simply the best impression of which a negative is capable, but he must be able to produce, if necessary, a much better picture than any simply printed impression can present. He must not simply be master of the various modes of vignetting and masking to produce various shaped medallions, but he must understand the art of masking, shading, toning down, and double printing, with a view to artistic effect. He must be master of his methods, so as to produce the varied tones which may be required with certainty and evenness. He must be able to prepare his materials, keep them in order, and recognize and rectify disordered conditions. He must do this with the least possible waste of paper and other material; and he must be able to secure the nearest approximation to permanency which can be hoped for in silver printing on albumenized paper. These are some of the leading qualifications of a printer in an ordinary photographic establishment. If he can print well by development on collodion and paper; print well on plain paper and opal glass; and has some acquaintance with the various permanent printing processes, so much the better. But it will be admitted that the possession of an approximate mastery of the details we have mentioned involves an amount of accomplishment in the art not usually possessed by boys and girls, and entitles the possessor to a position not in any way inferior to that of skilled hands in any branch of the art.

"Notwithstanding the real importance of printing processes, it is curious how comparatively little has been published on the subject. In all manuals it, of course, bears a part, but often a small one; and, with the exception of one or two tractates, no work has been devoted to the subject. In the work before us, however, silver printing and everything connected therewith is treated most exhaustively, and the work is evidently that of a practical man who speaks out of the fulness of his own experience in every branch of regular work, as well as with familiarity of the various forms of fancy printing, which have prevailed more in America than in this country. Hearn manifestly thoroughly understands his work, and is, moreover, a clear and vigorous writer. As we intend making some copious extracts from this work, with comments and suggestions, we will commence with the author's introductory remarks on the printing-room."

The British Journal of Photography of the same date also extracts several pages from the book, and among other complimentary remarks says:

"In a closely printed octavo volume of one hundred and ninety-two pages, devoted exclusively to the subject of the printing of photographs, we naturally anticipate finding the matter very fully treated. It is a considerable period since we rose from the perusal of a new book on photography with feelings of greater satisfaction than in the present instance; and we appreciate the author as a writer, not only thoroughly conversant with the subject, but as very willing to impart to those less skilled the knowledge he possesses, and who, happily, has also the ability to do this in a singularly lucid and attractive manner. There are over fifty diagrammatic illustrations, and a photographic frontispiece by Gutekunst, a cabinet portrait of a boy, posed in an easy and effective manner, and printed in a deep-brown tone, just verging on the violet.

"What treatise on photographic printing would be complete without an adequate portion being devoted to the all-important topic of toning? Mr. Hearn treats this subject with much fulness, imparting value to his observations by a variety of formulæ, and has added practical instructions for the guidance of operators, supplementing the more purely executive portion by some observations on 'artistic toning,' which contains such a happy admixture of early experience in toning and valuable æsthetic observations that we present it as a specimen of the author's style.

"'The Practical Printer' is well 'got up,' and the work cannot fail of being acceptable and useful to all classes of photographers, the veteran as well as the tyro in our art-science."

With these flattering testimonials the work needs no further recommendation from us. We are satisfied that it will stand on its own merits, and that all progressive enterprising photographers everywhere will buy and read the book. No man in business can afford to be without it in his gallery.

HINTS UNDER THE SKYLIGHT.

BY R. J. CHUTE.

PROPORTIONS OF LIGHT AND SHADE.

VERY many of the best photographic productions are defective in the composition of light and shade, producing either extremes of vigor by violent contrasts of light and dark, or a sameness of middle tint over the whole that detracts from the value of the lights, and gives the picture an appearance of flatness.

This is a point that has evidently been overlooked, except by the most careful and cultured artists; the consequence has been that the relative proportion of light and shade in a picture has been a matter of chance or haphazard. Now, there are certain rules and conditions that govern this as well as any other department of art, and it is only necessary that they should be well understood, to be applied by the photographer to the works of art he may produce, as well as by the old masters in the various schools of painting.

Sir Joshua Reynolds gives the following as the result of his observations "On the works of those artists who appear to have best understood the management of light and shade:"

"Titian, Paul Veronese, and Tintoreti, were among the first painters who reduced to a system what was before practiced without any fixed principle, and consequently neglected occasionally.

"From the Venetian painters Rubens extracted his scheme of composition, which was soon understood and adopted by his countrymen, and extended even to the minor painters of familiar life in the Dutch school.

"When I was at Venice, the method I took to avail myself of their principles was this: When I observed an extraordinary effect of light and shade in any picture, I took a leaf of my pocket-book, and darkened every part of it in the same gradation of light and shade as the picture, leaving the white paper untouched, to represent light, and this without any attention to the subject or to the drawing of the figures. A few trials of this kind will be sufficient to give the method of their conduct in the

management of their lights. After a few experiments, I found the paper blotted nearly alike; their general practice appeared to be, to allow not above a quarter of the picture for the light, including in this portion both the principal and secondary lights; another quarter to be as dark as possible, and the remaining half kept in mezzotint or half shadow.

"Reubens appears to have admitted rather more light than a quarter, and Rembrandt much less, scarce an eighth. By this conduct, Rembrandt's light is extremely brilliant, but it costs too much; the rest of the picture is sacrificed to this one object. That light will certainly appear the brightest which is surrounded with the greatest quantity of shade, supposing equal skill in the artist."

How applicable and instructive are these observations to every *photographic* artist! As coming from one of the foremost portrait painters of his time, and being careful deductions from the works of some of the most celebrated artists, they are especially worthy of thought and application under the skylight.

The reference to the peculiar style of Rembrandt is more applicable to photographers of to-day than to artists of any other period, from the fact that there are so many imitators of this style. "Rembrandt's light is extremely brilliant, but it costs too much." How true in reference to photography. How many brilliant lights we see that have but little value, because other parts have suffered so much in producing them. This method of lighting is an extreme that is only justifiable under certain conditions, or with certain subjects. For light drapery it is unquestionably preferable, as the larger portion is then thrown in the shade, and takes a subdued middle tint much more pleasing than the full glare of light; but for general practice the proportion of light used by the other masters will be more likely to lead to successful results.

The Chicago Exhibition showed that many of our photographers still strive for the "costly lights." The face, with its fine modelling, in most cases, is set in a great expanse of background of almost total blackness. The effect is not pleasing; the eye is

soon wearied and turns from it dissatisfied. A picture seen from such a distance that the details cannot be distinguished, will attract attention at once, simply by the proper proportion and balance of light and shade; and, on coming mearer, the eye is captivated by its beauty, and dwells on it with satisfaction and delight.

It might be said that the Rembrandt style had cost too much in effort and failure; but, though the expense may have been great, yet the wonderful advance made in studying, comprehending, and producing light and shade, will doubtless compensate for all the sacrifice.

THE EXHIBITION AT CHICAGO.

As promised in our last, we give this month as complete a list of the exhibitors at Chicago as we could make. We do not pretend to criticize or compare, for it is our habit not to do it. Each person doubtless exhibited the best he could do, and all praise is due him for his willingness to do so. We regret that the list is so small, but those who are represented therein are worthy of the highest commendation for their public spirit. In these remarks we do not wish to be included, for although we took down from the walls of our offices the precious gems which hang there, and had them sent to Chicago and exhibited in a special room made to imitate our home office, we are not producers, and therefore do not arrogate anything to ourselves but the desire to instruct others.

The display of apparatus and other articles needful for the production of photographs was unusually brilliant and fine, and as such goods are judiciously advertised in our columns, we merely give a list of the exhibitors. Next year we do hope there will be more who have public spirit and generosity enough to give others the opportunity of studying their best works. As near as possible the pictures were arranged by States—a good plan.

LIST OF EXHIBITORS.

L. G. Bigelow, Detroit, Mich.

S. Root, Dubuque, Iowa.

Monfort & Hill, Burlington, Iowa.

E. P. Libby, Keokuk, Iowa.

J. E. Bilbrough, Dubuque, Iowa.

B. F. Battels, Akron, Ohio.

C. E. Seymour & Co., Findlay, Ohio.

Courtney & Appleton, Millersburg, Ohio.

F. S. Crowell, Mount Vernon, Ohio.

G. W. Edmondson, Plymouth, Ohio.

Albert Moore, Philadelphia, Pa.

A. J. Shepler, Canton, Ohio.

F. M. Bell Smith, Hamilton, Ont.

Wilt Bros., Franklin, Pa.

McKecknie & Thompson, Toledo, Ohio.

L. W. Roberts, Urbana, Ohio.

E. Decker, Cleveland, Ohio.

Hoard & Tenney, Winona, Minn.

W. H. Jacoby, Minneapolis, Minn.

A. H. Beales, Minneapolis, Minn.

J. A. W. Pittman, Carthage, Ill.

M. C. Edgerly, Peru, Ill.

W. M. Lockwood, Ripon, Wis.

Cook Ely, Racine, Wis.

Mote Bros., Richmond, Ind.

C. Murr, Joliet, Ill.

Pickerell & White, Indianapolis, Ind.

G. Bacon, Pekin, Ill.

D. H. Wright, Terre Haute, Ind.

H. O. Heichert, Frankfort, Ind.

S. M. Taylor, Berlin, Wis.

S. W. Truesdell, Kenosha, Wis.

D. Bendann, Baltimore, Md.

J. W. Bryant, Laporte, Ind.

C. C. Giers, Nashville, Tenn.

N. H. Busey, Baltimore, Md.

E. Schultheis, Baltimore, Md.

I. B. Webster, Louisville, Ky.

W. C. Eaton, Newark, N. J.

E. L. Eaton, Omaha, Neb.

J. L. Knight, Topeka, Kansas.

C. L. Pond, Buffalo, N. Y.

J. Smith, Chicago, Ill.

Copelin & Son, Chicago, Ill.

H. W. Loveday, Chicago, Ill.

C. Gentile, Chicago, III.

J. A. Morris, Chicago, Ill.

E. D. Ormsby, Chicago, Ill.

O. F. Weaver, Chicago, Ill.

S. Rabal, Evanston, Ill.

J. Battersby, Chicago, Ill.

L. Alschuler, Chicago, Ill.

S. M. Fassett, Chicago, Ill.

Bradley & Rulofson, San Francisco, Cal.

G. O. Hallwig, St. Louis, Mo.

E. L. Brand & Co., Chicago, Ill.

C. D. Mosher, Chicago, Ill.

Henry Rocher, Chicago, Ill.

A. Hesler, Evanston, Ill.

W. R. Howell, New York.

R. Benecke, St. Louis, Mo.

E. R. Weston, Bangor, Me.

J. W. Black, Boston, Mass.

D. K. Prescott, Boston, Mass.

M. T. Carter, Worcester, Mass.

Allen & Rowell, Boston, Mass.

A. N. Hardy, Boston, Mass.

T. R. Burnham, Boston, Mass.

J. Barhydt, Rochester, N. Y.

E. M. Collins, Oswego, N. Y.

J. K. Stevens, Chicago, Ill.

A. Hall, Chicago, Ill.

Geo. Barker, Niagara Falls, N. Y.

Joslin & Phillips, Danville. Ill.

W. E. Bowman, Ottawa, Ill.

A. Bogardus, New York.

A. C. Partridge, Boston, Mass.

E. L. Wilson, Philadelphia, Pa.

L. M. Melander, Chicago, Ill.

L. S. White, Indianapolis, Ind.

C. A. Zimmerman, St. Paul, Minn.

Fred. Wingard, Chicago, Ill.

Z. P. McMillen, Galesburg, Ill.

J. Q. A. Tresize, Springfield, Ill.

Otto Westerman, Pekin, Ill.

J. W. Wykes, Quincy, Ill.

S. B. Wilson, Washington, Ill.

Bulla Bros., South Bend, Ind.

S. A. Anderson, New Orleans, La.

Mrs. M. A. Thornton, Perrysburg, Ohio.

G. M. Carlisle, Providence, R. I. A. J. T. Joslin, Gilman, Ill.

Thos. H. Rutter & Co., Deer Lodge City, Montana.

Photographic Requisites.

Wilson, Hood & Co., Philadelphia, Pa.

N. C. Thayer & Co., Chicago, Ill.

E. & H. T. Anthony & Co., New York.

Gatchel & Hyatt, Cincinnati, St. Louis, &c.

Scovill Manufacturing Co., New York.

C. W. Stevens, Chicago, Ill.

Taft & Schwamb, Chicago, Ill.

B. French & Co., Boston, Mass.

C. F. Usener, New York.

J. P. Beard & Co., Chicago, III.

A. P. C. Bonte, Chicago, III.

W. W. Gillis, Rochester, N. Y.

L. W. Seavey, New York.

L. Pattberg & Bro., New York.

Nason Novelty Co., Columbus, O.

W. G. Entrekin, Manayunk, Pa.

L. V. Moulton, Beaver Dam, Wisconsin.

Rice & Thompson, Chicago, Ill. E. L. Brand & Co., Chicago, Ill.

Benerman & Wilson, Philadelphia, Pa.

L. G. Bigelow, Detroit, Michigan.

Class in Landscape Photography.

UNLIKE the portrait photographer, who has his subjects come to him, and who is obliged to take them as they come, favorable or unfavorable, the landscape artist has the larger liberty of going out and choosing his. The whole broad expanse of nature is before him, and his success depends upon the degree of skill he may possess in choosing the subjects that lie all about him. With this freedom of choice, there comes to many, especially to the beginner, a feeling or a wish to do something grand. He sees no subject of sufficient interest for his camera; nothing short of the roaring cataract of Niagara, the towering peaks of the Sierra Nevadas, or the magnificent heights and depths of the Yosemite Valley, will do for him.

These are among the grandest subjects in the world, but pictures of them, even, may fall below mediocrity, unless the eye of an artist and a love for the beautiful guide in their production. Under the direction of these there are pictures everywhere, beautiful gems lie all about us, and if we only see aright we may find beauties near our own homes that we have never dreamed of.

This choice of the subject in landscape photography ranks in importance far above formula, manipulation, or any other accessory consideration connected with the work. It is on this point that study, skill, and judgment should be brought to bear, more than on any other.

In making a selection for a view, the first consideration is to find a subject; it must consist of something that can be read without a detailed description being given with it. It may consist of a building, a number of buildings, a street, a panoramic view, a mountain, valley, lake, river, waterfall, a bridge, a ruin, or instantaneous marine. Whatever it may be, the subject is to be first chosen; then examine it from different points and in different lights, to see which presents it most favorably. If upon selecting a point from which the view composes well, that is, presents good fore, middle-ground, and distance, and yet the light is not favorable, then take advantage again of the freedom you have in treating your subject, and go either earlier or later in the

day, when the light may be best for producing a truthful and pictorial representation.

In this connection it may be well to remark that a view should never be made with a direct front-light any more than a portrait. The principle governing one in this respect is applicable to the other. The light should always come from the side, and, according to the subject, may be most favorable at noonday or in the morning or afternoon. A subject that is composed of a great many members may be photographed best when the sun is high, as the light falling obliquely upon them runs them together in confusion; while, on the contrary, a subject in which the members are few and scattered will be made most effective by their lengthened shadows, which tend to unite the several parts.

In a diffused light, of course there is but little latitude in this direction; but we would suggest to those that are yet inexperienced in this department that very few views are as effective without sunlight as with. A subject that includes strong contrasts of dark and light, as a white house surrounded with dark foliage, is better photographed in a diffused light. But for general landscape work, the beauty of any scene is enriched and intensified by the glory of the sunlight falling upon it from such direction as shall have been chosen by artistic judgment, according to the subject and composition.

In selecting the best point of view of any subject, consideration must be had as to its form and surroundings. A little in perspective is usually better for a building than a direct front view. If it be surrounded with trees, or other buildings near it, then the view should be from such point as to compose these to the best advantage. By composing is meant to place them in such positions as will assist in giving prominence and character to the principal object in the picture. Sometimes a tree or mass of foliage in the immediate foreground, introduced as a whole or in part, according to its dimensions and the size of the picture, is very effective in giving depth and force to the composition. Again, trees or other buildings help to form the background, and

give support and relief to the subject. All these are accessory, and should always be kept subordinate, both as to position or prominence. With a panoramic view, such position should be chosen as will include the subject to the best advantage, giving the preference to that which would place a range of hills or mountains, if such there be, in the background, avoiding always in the view any lines, that is, a repetition of lines, that might run either horizontally or vertically.

That picture of a mountain or valley is best which gives a correct idea of its height and depth. A view of a mountain simply by itself, showing its two sloping sides, conveys no estimate of its magnitude; it may be a mountain or a mere hillock; but when we get the outline of the side of a mountain, tracing it from the sky to its base in the valley below, with a portion of foreground and distance to support it, we then see its vast proportions, and can estimate the value given to the mountain by the valley, and vice versa.

(To be continued.)

MATTERS OF THE



Membership costs \$2; annual dues, \$4, in advance. Life membership, \$25, and no dues. It is proposed presently to double the fees for life membership.

Members are hereby notified that their annual dues were payable June 1st, 1874. Employers \$4, and employés \$2. The Treasurer urges that prompt remittances be made. Please remit now.

All remittances of back dues should be sent to the Treasurer, Albert Moore, 828 Wood Street, Philadelphia, and fees and dues for new members to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Life Members.—A list of the new life members will be given next month. It was proposed to do so this month, but the Executive Committee have not met.

The Report of the Proceedings of the late Convention will be issued by the Association in pamphlet form. Before printing, the Executive Committee desire to know how many copies will be needed, and therefore request those who wish copies to notify the Permanent Secretary how many at once. The price is \$1 per copy. Those not members of the Association who subscribe will also be supplied. The report will be valuable to every photographer.

It was announced to all the members of the Association by postal card, that orders for copies must be received by August 15th, but as enough orders to pay for the publication were not received by that time, the offer is made good until September 20th. It is a pity that the publication of the report should be delayed in this way. Last year it will be remembered that we had the report complete in our September number. "Large bodies move slowly," certainly in this case. But the delay is caused by those to whom the report will do most good.

The 1874 Badge.—Members of the National Photographic Association who were not present at Chicago, may obtain the 1874 Badge by sending a three-cent stamp to the Permanent Secretary. It contains the portrait of the Permanent Secretary.

The New President .- Mr. W. H. Rulofson, of San Francisco, proved to be a good choice at Chicago, and but for his energy and push, the Association would yet be largely in debt. He seemed to comprehend the situation at once, and took hold of it with all the zeal and business tact (for which he is so famous as a business man at home) in his make-up, until there was a good prospect of the debt being wiped out. And he not only urged the members to do all in their power, but personally he did much more than his share. He purchased liberally of the articles which were given for the debt fund, and gave himself the handsome collection of large portraits and views

he had on exhibition; and further, he stood upon a pedestal one evening for over two hours, in the $r\partial le$ of an auctioneer, and in his inimitable style sold his own and other pictures to the highest bidder. We do not think those who were present at this auction ever had more real mirthful enjoyment crowded into two hours than they had on that occasion. Long live the new President.

How it was Done.—All praise to Local Secretary Hesler. In his characteristically quiet and unostentatious way, he has done what was never done before by any of He obtained contribuhis predecessors. tions from citizens sufficient, with the fees paid by dealers, not only to pay the entire expenses of the Convention and Exhibition, but to place in the treasury a balance of very nearly three hundred dollars. And this, too, with a free exhibition. Was that not handsome? All praise, too, to those who gave him their subscriptions and paid them. The names of the donors should also be placed on record, and we extract them from Mr. Hesler's report:

Subscriptions.—C. W. Stevens, \$250; Rice & Thompson, \$50; A. P. C. Bonte, \$50; C. D. Mosher, \$100; D. H. Cross, \$25; Miss Gilbert, Miss Carr, Messrs. F. Wingard, J. F. Edgeworth, O. F. Weaver, Joshua Smith, Lovejoy & Foster, Chicago Refining Co., and W. E. Bowman, each \$10; Copelin & Son, \$50; H. Rocher, \$25; and C. Gentille, \$25. Palmer House, \$100; Grand Pacific Hotel, \$100; Tremont House, \$50; Clifton House, \$50; Commercial, \$25; St. James, \$25; Kuhns, \$25; Matteson, \$25; Brevoort, \$25; Metropolitan, \$10; in all \$1100.

The following dealers paid \$50 each for their exhibition space. It will be noticed that several of these subscribed to the expenses additionally: Messrs. C. W. Stevens, Rice & Thompson, A. P. C. Bonte, J. P. Beard & Co., N. C. Thayer & Co., E. L. Brand & Co., Taft & Schwamb, Scovill Manufacturing Co., Benerman & Wilson, E. & H. T. Anthony & Co., B. French & Co., L. W. Seavey, Gatchel & Hyatt, L. Pattberg & Brother, W. W. Gillis.

Total from dealers, .		\$750	00
Subscriptions,		1100	
Admittance to meeting	ıgs,		
badges, &c.,		62	70
Total receipts, .		\$1912	70
Entire expenses,		1618	67
Sent to the Treasurer by Lo	cal		_
Secretary Hesler.		\$294	03

It will be seen, then, that the total expenses of the Convention is \$1618.67, of which amount Chicago alone paid \$1100. The balance was paid by the fees from dealers.



DEAR SIR: A friend suggests, as a good way to obviate the necessity of using Shaw's process to recover silver from hypo solution, to put the spent hypo solution into an iron kettle, and boil it down to erystallizing-point. The soda crystallizes and the silver falls down in a deposit at bottom of kettle, thus saving soda and silver. If this is so, Mr. Shaw had better squelch on the sulphuret of potassium claim, as it is of no use.

E. S. C.

This plan will not answer, as the hyposulphate of soda and chloride or iodide of silver form double soluble salts, which will crystallize out with the hypo, and not fall to the bottom as an insoluble precipitate. M.

In reading articles on "Silvering Paper" in your valuable journal, and other publications, I frequently meet the phrase, "Dry quickly."

Will you be so kind as to tell us in some future number what is meant by that phrase? It is probably a small matter, but I believe the smallest matters should be done rightly

in order to make perfect results. To "dry quickly" may mean in five minutes or five hours.

What is the most approved plan for quick drying?

D. E. SMITH.

Any method of applying artificial heat, whether from a furnace-register, a stove, gas, or lamp, will answer the purpose. Will some printer give his method and reasons for quick drying?

SPHYNX.

WILL Sphynx please tell me what is the cause of ferrotypes drying a yellowish dead color after varnishing, looking something like reflected light? I have been bothered for two or three springs past (only in the spring, however). I have tried everything I can think of up to this time, but have not succeeded in finding a remedy as yet.

I find I am not alone in this trouble, as I have seen it in the pictures of others time and again.

Some have said it was caused by overexposure and too strong a developer. If Sphynx will give a remedy that will cure the disease he will greatly oblige

W. J. HILLMAN.

PLEASE tell me how to give an extra polish to prints without a roller, and oblige H.

The best method we know of is to use "Entrekin's Oscillating Enameller," advertised on the outside of the cover. Or see Mosaics, 1872, page 93. SPHYNX.

First. What substance will produce a perfectly white coating on ferrotype plates or any dark body; the same not to affect photographic operations upon it, but to remain white?

Second. Also a good process for photographing on wood; the mode of printing, &c.

INQUIRER.

First.—You ask too much; we don't know. One of the most diligent experimenters in photography spent many years and his best energies in solving this very question. He succeeded to some extent, but he is dead, and his process, so far as we know, remains a secret.

Second.—A good process for photographing on wood was published in the *Philadel-phia Photographer* for July, 1866.

SPHYNX.

ANSWER TO OLIVIA BROWN.-The tone or color of the negative is usually produced by the development or redevelopment, except where a blackening or toning solution, such as sulphuret of potash or bichloride of mercury, is used afterwards, and the development will produce different effects according to the time of exposure. action of the developer is affected by the quantity of acid used, and the condition of the collodion and bath may also affect the result. But the "olive brown" tone is most effectually produced by making a negative a little weak, and strengthening a trifle with pyrogallic acid after development. Pyrogallic acid 2 grains, citric acid 11 grains to the ounce of water. Sufficient of this solution to cover the plate, and a half dozen drops of a weak silver solution, say from 15 to 20 grains to the ounce, flowed off and on the plate a few times, will give the desired effect.

SPHYNX.

A TINTYPE PUZZLE FOR SPHYNX .-Some years since I was copying a daguerreotype, by the daguerreotype process, and by oversight left the plate exposed to the original all night, and until 10 o'clock next day, when on taking the plate out, I found a picture as distinctly formed as if it had been mercurialized; this to me was a puzzle, and is yet, as the copying-room was so far from the dark-room. A short time since I placed two ferrotype plates in a wet state, face to face, and left them to dry. On taking them apart I found that the image on each plate had impressed itself on the other, just as perfectly as if it had been lighted and developed in the usual way. These plates had been just exposed, developed, cleaned, and washed in the usual way, and had dried during the night in the dark-room. I send you one of the plates.

Who will "rise to explain"? M.

By a mishap I have recently had a clothes-pin (brass spring) to fall into each a printing and negative bath; the former I boiled down and fused; still there is a greenish-looking appearance in it. Can you tell me how I can get rid of the copper, which I presume it is? Each coil of spring was coated with a heavy deposit of metallic

silver, and a solid mass. Shall I send this to a refiner with other waste?

L. W. KEEN.

There is no way of getting rid of the copper. Try the bath; it may work: if it does not, you will have to put it aside with your wastes. Save also the metallic silver deposited on the brass springs for refining with your other wastes.

M. H. M.

Since the above, Mr. Keen writes us that his bath has got to work, and is better than before.

SPHYNX.

DEAR SPHYNX: I have been troubled for three weeks with a peculiar case of streaks, which I have never seen explained in any publication. They are always in the direction of the dip, and appear similar to Mr. Anderson's cut, No. 153, but are not by the same cause. It seems to make no difference how long the plate is held before dipping, or how slow it is dipped, it is all the same. At first I thought they were caused by the bath or by dipping, but find they are not. Some plates are worse than others, and occasionally I don't see them, which indicates that the fault is in the plates. I use my plates over and over again, and very seldom use new ones. The streaks show plainly on the plate when taken from the bath, and of course the exposure and development bring them out stronger.

When I coat a plate (dark-room not warm), the underside of the plate becomes moist, and a spotty, streaky moisture it is, which means unclean plate, although the plate looks clean when albumenized. I soak my plates over night in a saturated solution of concentrated potash, wash and soak in a dilute nitric acid solution, one-quarter acid, three-quarters water, twelve hours. There I suppose is where the trouble is; acid should not be diluted. Thomas.

Warm your room, and expel the dampness. Your plates are too long in the potash. Being repeated again and again the plates become rusted. Your acid is strong enough. Try a new plate that you know to be clean.

For a method of cleaning off varnished films, see the last April issue of the *Philadelphia Photographer*, page 107.

SPHYNX.

NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

Enamel Photography.—Reproducing Negatives, and Printing from Two Negatives.

Enamel Photography.—There is, probably, no branch of photography producing results of such high excellence, which has made so little headway with the mass of photographers, as that devoted to the production of ceramic photographs. A fine photographic enamel is, as a rule, an embodiment of all that can be desired in a photograph. It possesses the delicacy of the daguerreotype with the vigor of a paper print, and a peculiar softness without loss of definition, and a pearly tenderness in the minor lights rarely found in any other picture. And it is not only permanent, but indestructible, unless, indeed, it be crushed under a hammer, or melted in a furnace. And yet, although modes of producing such charming portraits have existed for nearly twenty years, the art is still in its infancy, and those who undertake its study may be counted by tens instead of tens of thousands.

There are three distinct methods of producing enamels. The three processes are—the tissue process, the conversion process, and the powder process. The tissue process consists in preparing a tissue like carbon tissue, using a ceramic powder in place of carbon or other pigment. This has been but little practiced. The conversion process consists in producing a positive image by the wet process, and toning it with platinum, gold, iridium, palladium, or some other metal, and then, after transferring the image to a suitable place, vitrifying it by the action of heat in the ordinary muffle furnace.

The powder process, as your readers know, consists in producing a sticky image, by means of a film of bichromate and gelatin film, to which a ceramic powder adheres in the exact ratio of its protection from the action of light by the opaque parts of the negative.

· The powder process is, in many respects, the most easy method of the three; it is more essentially mechanical than the others, and, in some respects, more completely under control than they are. And yet it is much less practiced than the conversion process. We do not at the present moment know a single photographer in this country who practices the powder process, whilst there are perhaps a dozen practicing the conversion process. The fact appears to be this: although there are many uncertainties in the conversion process, the results, when perfect success is attained, are infinitely finer than any other. It is not difficult, as a rule, to distinguish by which process an enamel has been produced. The image produced by the powder process rarely possesses the delicacy of that produced by the conversion process. There is a certain dull opaqueness in the shadows, and at times a granular quality in the deposit, which contrasts very unfavorably with the translucent delicacy obtained by the other process. Whether equally good results can be produced by each process we cannot say, for profound secrecy is preserved by some of those who produce the finest results; but we believe that the most successful men use the conversion process.

Besides being inferior in delicacy, a variety of minor difficulties have beset the powder process, arising from the presence of the chromic salt. In the powder process there are two or three advantages of the utmost importance. In the first place there, is more complete control over the tone of the picture than in the conversion process. In the latter there is generally more or less uncertainty of the precise tone a picture will possess after it is burnt. In the powder process, if a suitable ceramic pigment has been chosen, it will generally burn to the precise tint for which it has been selected. The greatest advantage possessed by the powder process consists in the control which the operator possesses over the character of the picture, in applying the powder in greater or less proportion upon different parts of the image.

In a recent paper read before the Vienna Society, Herr Obernetter states that he has overcome many of the difficulties of the powder process. I believe, however, that it is not under the best conditions capable of producing results of such exquisite delicacy and beauty as the conversion process,

and as it involves the use of processes and materials with which photographers are unfamiliar, it is not likely to become so popular as the conversion process. All the manipulative details of the latter are simple enough, but the highest excellence depends very much upon exact formula, and the best formula are secrets which the very few possessors regard as valuable property. The worst of buying a secret process is the uncertainty whether the secret when communicated will be worth the money. The only guarantee the purchaser can have is the sight of excellent results, and the good faith of the vendor. I noticed in a recent Photographer, that you contemplated aiding your readers to purchase the secret formula of Mr. Robinson's process. Certainly purchasers will possess the guarantee of wonderful excellence of result, and the good faith does not need affirming. rarely seen such magnificent results in enamelling as those produced by Mr. Robinson. An amusing pother has been made in a journal on this side, by an experimentalist who once sold Mr. Robinson some hints, now claiming the credit of the grand results, which by carefully working the thing out Mr. Robinson has been able to arrive at! And I think it is further insinuated, that you are a very wicked person to try to aid in placing a good process in the hands of vour readers!

Reproducing Negatives, and Printing from Two Negatives .- The method of reproducing negatives by the powder process has been receiving considerable attention here. The extreme simplicity of the process, the fact that a negative is produced from a negative at one operation without the need of first producing a transparent positive, and the real excellence of the results, have combined to give a special interest to the process. A practical demonstration of the process showing its value for various purposes, and the simplicity with which it could be worked, was recently given at a meeting of the South London Photographic Society. I would commend this method of illustrating a subject to photographic societies amongst you. Where it is possible to demonstrate any new process by practically working, chatting about the thing, asking and answering

questions, it gives a singularly interesting and instructive character to a meeting.

Amongst the incidental advantages of the method of reproducing negatives to which I am referring, there are two or three of especial importance. Your readers are familiar with the idea of using two negatives, one placed behind the other, for the purpose of producing one print, soft, round, and vigorous. Indeed, if I remember rightly, the idea was first published in America, This, it is understood, is the plan by which Denier, of St. Petersburg, produces the charmingly artistic portraits which have obtained much celebrity. An application of this powder process to the purpose in question was shown at the South London meeting by Mr. B. J. Edwards.

He showed a print obtained from a good, thin, sharp negative, and a print from the same negative with a duplicate negative image placed behind it. The latter was decidedly an improvement upon the first, although the first was an unusually fine picture. The print obtained when the light traversed two negatives, had, as in Denier's portraits, a peculiarly rich, solid, and artistic quality. Whilst there was perfect definition as to the result of the contact negative, there was a peculiar fulness of modelling, and a singular softness without fuzziness, produced by the light passing through the negative not in contact.

In Mr. Edwards's experiments, he had placed both the negatives on one glass, the duplicate being on the back of the glass containing the original negative, in manner similar to the duplicate negatives you described some time ago, obtained by coating both sides of the glass with collodion, and producing the duplicate image in the camera. Mr. Edwards coats the back of his negative with the bichromated syrup, and exposes the front to parallel rays, so as to secure a moderately sharp image by printing on the sensitive film through the glass. The exposure must be a full one, as the light impinging on the under side of the bichromated film must pass quite through it in order to give a satisfactory image, and admit of developing by application of the powdered plumbago. The amount of intensity is quite under control, and the operator will be governed by the quality of the original negative as to whether he shall make the duplicate dense or thin.

It seems probable that a better plan would be to take the duplicate negative in the ordinary way by the powder process, upon a separate glass, adopting the plan, however, of giving the glass a preliminary coating of collodion. The completed duplicate negative being, after transfer, contained between two layers of collodion, may be used in that form without a glass support. It may then be used in any position the photographer may choose, either at the back of the original negative, or in contact with its face, or with some thin medium interposed, so as to modify the effects to be produced. In producing the duplicate negative on a separate support of thin tissue, rather than at the back of the original negative, other advantages are gained, and inconveniences avoided.

Considerable scope to the artistic taste and skill of the photographer, in producing and printing from his duplicate negative in contact with the original, is offered in this process.

Another purpose to which this process can be applied is, giving additional intensity to silver negatives. Mr. Woodbury refers to some capital results obtained in this way by one of his friends. He says:

"I think this will prove a valuable application, as the intensifying may, so to speak, be localized, and effects got that could not be obtained by the ordinary methods of redeveloping. Having taken a negative, and developed with iron, allow the superfluous moisture to drain away, and proceed exactly as I have described in the earlier part of this article-that is, coat with the sensitive solution, dry, and expose to light. The black lead may then be applied until the desired effect is produced—the most work being laid on a weak foreground, for instance, and the least on a delicate sky, thus avoiding that want of harmony so often found in a negative redeveloped in the ordinary way. It must be borne in mind that the black-lead process will not bring out more detail, which may be often accomplished by silver redeveloping, although I have noticed that details in the blacks that could hardly be observed were made to show plainly."

Editor's Table.

Lost.—We had on our table in Chicago a French work, entitled "Traité Général de Photographie, par D. V. Monckhoven." It failed to return with our goods, and we can find no trace of it. We have been singularly unfortunate with this book. We had a copy, which we had just had bound, ruined by the deluge in our office last March; we then procured another, which went with our other books to Chicago, in mistake, and we have lost that. Any one finding and returning it to us will confer a great favor, and we will remit the postage.

SOAP AND ALCOHOL AGAIN .- In our July issue we called attention to the doings of one Patrick H. Dean, of Winchester, Ind, who was striving to exact a royalty from photographers for the use of soap and alcohol, the well-known lubricator for prints previous to being burnished. Since then several of our subscribers have informed us that Mr. Dean continues to press this amusing claim peremptorily upon them. Mr. Dean in his patent specifications says as follows: "This invention consists of a composition formed by mixing castile soap and glycerin with alcohol and liquid ammonia. To prepare the varnish, take 24 grains of castile soap, 4 oz. of glycerin, 6 oz. of alcohol, and $\frac{1}{2}$ oz. of liq. ammonia. These ingredients are thoroughly mixed together and heated in a suitable vessel to effect their intimate union.

"I have found by actual tests that the varnish above described is superior to any now in most general use."

And further: "What I claim as my invention, and desire to secure by letters-patent, is the herein-described compound for varnishing photographs, consisting of a mixture of eastile soap, glycerin, alcohol, and liquid ammonia, in about the proportions, and prepared substantially in the manner specified."

Now as Mr. Dean twice states that his patent "consists of a composition formed by mixing eastile soap and glycerin with alcohol and liquid ammonia," how absurd for any one, for a moment, to tolerate Mr. Dean's claim that his patent covers the use of soap and alcohol alone, let alone to pay him anything for it. He himself limits his patent to the combination named—no more, no less. When will photographers learn not to be scared by every tonguey man who comes along with a patent specification and a threat in his band?

A CARD.—
ROCHESTER, N. Y., Aug. 4th, 1874.

FRIEND WILSON: In your flattering notice of the illustration for the August *Photographer* you make it appear (to me) that you misunderstood me at Chicago in regard to the retouching.

It would be impossible for me to do all my retouching, but although I have able assistants my time is mostly occupied that way.

The specimen (save the printing by Mr. E. Case), however, is the work of Mr. S. Gregg, my operator, who, as a general workman, I think has no superior. I write this in justice to him, and wish to state that I am proud of the skill of all of my assistants, and desire to give honor where honor is due.

Yours truly

J. BARHYDT.

WE have received from Mr. Ormsby the following explanation of his Enamel Process, published in our last issue:

CHICAGO, Aug. 10th, 1874.

MR. EDWARD L. WILSON.

DEAR SIR: I have received quite a number of letters of complaint, stating that they have tried the process as published in the August Photographer, and their prints stick to the glass. The following is the remedy for sticking: After cleaning the plate thoroughly, rub over it a solution of white wax dissolved in ether; then polish off with tissue-paper; then coat with collodion, made of five parts of ether to three parts of alcohol, six grains of cotton to the ounce, and I will warrant them not to stick.

Respectfully yours,

E. D. ORMSBY.

VIEWS OF THE MASONIC TEMPLE.—We desire to call the attention of those of our readers who are members of the Masonic fraternity to the beautiful views of the Masonic Temple at Philadelphia—exterior and interior. In the new advertisement of them a list of the subjects is given. They are exquisite pictures, from negatives by Mr. F. Gutekunst, Philadelphia, and of interest, on account of their beauty, to every one.

We recently called upon our friend Mr. Albert Moore, the large solar printer, and Treasurer of the National Photographic Association, and found him "pushing things." From the large number of pieces hanging up drying from his last wash we concluded the heat and the panie had not reached his person or affairs.

While commenting upon the beauty and variety of specimens of his work, we noticed some really handsome prints on painter's canvas, ready for delivery to one of his Chicago patrons; the tone, strength, and general appearance were equal to any of the prints on plain paper that we saw.

Upon inquiring for the process, he stated that it was made up of items, picked up at various times in different articles published in the Philadelphia Photographer and other journals, and in general was the most difficult of all the printing processes; the troubles in that connection being so various that the only way was to make a note of every failure and its cause, then when the remedy was found to remember it, and write down for future use in case of troubles. That the greatest trouble in canvas printing was to get rid of the oil on the surface, and to prevent any of it mingling with either the salting or the silver.

After a survey of the printing platform, which was crowded with his "pets," and which contained too much caloric for our general comfort, we left him busy. Give him a call; he will make you welcome. If he don't, his right (good) hand man, Mr. William H. Shoemaker, will.

THE Philadelphia Press of August 7th says:

"The Philadelphia Photographer for August gives a report of the proceedings of the recent Convention at Chicago. Mr. Edward L. Wilson, the editor, specially contributes a further portion of his professional tour through Europe last year; it is illustrated as before, and Mr. Wilson, who is a lively and well-informed companion, takes us with him to Milan, Pisa, Leghorn, and Rome. The photographic frontispiece this month, second of the prize series, is a portrait of a charming young lady; negatives and prints by J. Barhydt, Rochester, N. Y. The face is charming."

MR. R. BENECKE, St. Louis, Mo., is undoubtedly one of the best landscape photographers in the world. He had on exhibition at Chicago an admirable collection of outdoor views on the Kansas Pacific Railway that were very fine. They were sold at auction for the debt fund, and now Mr. Benecke has sent us some beautiful proofs, which are in the best style of outdoor work. As examples of printing also they are unexcelled.

THE AWARDS FOR THE FOREIGN AND LANDSCAPE PRIZE NEGATIVES have been postponed

hy the judges until November, for the following reasons. 1. Because they have notice of foreign negatives coming, which for some reason are delayed. 2. In order to give landscape photographers the advantage of the whole season. We hope none will object to this decision.

"Something New" seems to have caused more of a sensation than we expected it would, but we believe not more than it should, for the advantages it possesses as an advertising medium are great and good. A copy, if placed in the hands of one of your citizens, is almost sure to bring you a customer. It will really increase your business if you diffuse it with your business card on the cover. We send specimen copies free.

MR. C. D. Mosher, one of Chicago's most enterprising and progressive artists, has sent us large half-size portraits of Ex-President Bogardus and E. L. Wilson, Permanent Secretary of the National Photographic Association. They are among the finest examples of work of this size we have ever seen. Mr. Mosher made a fine display at the Exhibition, and is second to none in his efforts to elevate the photographic art. He is ably seconded in the work by his skilful and talented assistant, Mr. D. H. Cross.

THE GLACE PORTRAIT.—We have received from Messrs. C. D. Fredricks & Co., of New York, some beautiful examples of this new style of picture, otherwise known as cameo enamels, or imitation enamels.

FROM E. D. Ormsby, of Chicago, we have received a very fine photograph of Ex-Vice-President Schuyler Colfax. It does not always require a prominent subject in order to secure a good picture, neither are good pictures always made of such subjects; but we congratulate our friend on having made good use of the ex-official in his case. He has given us a most admirable specimen of the style of work he is capable of producing.

MR. J. A. Scholten has recently fitted and moved into his new and superb gallery, Nos. 920 and 922 Olive Street, corner of Tenth, St. Lonis. We are glad to see this evidence of his prosperity, and wish him continued success with his improved facilities.

FROM Mr. J. Pitcher Spooner, of Stockton, Cal., we have a flattering notice of his establishment, clipped from a local paper. We congratulate Mr. Spooner on the reputation he is making.

PICTURES RECEIVED .- From Messrs. Bradley & Rulofson, San Francisco, a number of cabinets in their usual excellent style. Some of them are portraits of Chinese in their native costume, showing all the peculiarities of these celestials in the land of the sun. We also have a fine stereo view of Mr. Rulofson, and a portion of his small family, forming an interesting domestic group around the door of his residence. From Mr. Alvah Pearsall, of Brooklyn, an exquisite cabinet head of an old white-haired gentleman. The lighting is brilliant, and the modelling perfeet. All produced without any artifice of double printing, or putting in lights. Cabinets also from E. J. Potter, Mansfield, Ohio. J. H. Folsom, Danbury, Conn., a number of cards in "silhouette," being profile portraits from life, evidently made with a very short exposure on a white ground. They are an oddity as a photograph, and being perfectly black, without detail, most people might object to them on account of their tendency to the Ethiopian order. Cards from G. D. Wakely, Kansas City, Mo., and J. Paul Martin, Boone, Iowa. From H. W. Immke, Princeton, Ill., a number of stereos of the ruins of the late fire in Chicago, and views of the Exposition Building taken during the Convention of the National Photographic Association. These last give us a very familiar scene, and are well executed.

PICTURES RECEIVED .- From Bradley & Rulofson, of San Francisco, some beautiful cabinets, showing that the prize pictures were no accident : they can do such work every day in the week. From Kilburn Brothers, Littleton, N. H., some fine stereos of scenery in Central Park, New York. From the following parties we have received specimens of photography, showing that they are sparing no pains or effort to bring their work up with the times. L. E. Thayer, view of Lake Memphremagog, from Newport, Vt.; H. L. Bingham, San Antonio, Texas, cabinets and cards; F. M. Spencer, Mansfield, Pa., cabinets and cards; Louis de Planque, Corpus Christi, Texas, cabinets, Victorias, and cards; Atkinson's Art Gallery, Palmyra, N.Y., cabinet; S. A. Rote, Ridgway, Pa., and E. H. Train, Helena, Montana, cards. We thank all who have thus remembered us, and wish them all the encouragement and success they deserve.

FIRST STEAMSHIP PIONEERS.—This is the title of an elegant souvenir presented us by the worthy President of the National Photographic Association, Mr. W. H. Rulofson, of San Francisco. It is a volume of 389 pages, printed in

large, clear type, in brown tinted ink, inclosed with a red border, leaving wide margins, on heavy white laid paper, bound in fine Turkey morocco, with gilt edges. It is edited by a committee of the Association whose name it bears, and is printed by H. S. Crocker & Co., of San Francisco. It sketches the lives and doings of the principel pioneers of California, many of whom roamed through wilds of the West, and settled on the Pacific coast long before the discovery of gold. It traces briefly the history of that eventful period when the gold fever ran high, and relates many incidents of thrilling interest to those who participated in the excitements of travel and adventure in those early days of the Golden State.

In the "Introductory Notes" a very flattering notice is given of the firm of Bradley & Rulofson, as one of the pioneer houses in business.

The book does great credit to the committee, as well as to the printers, for the arrangement of its contents, and the elegant and artistic manner in which it is printed and bound.

INDUSTRIAL EXHIBITIONS.—Pamphlets and circulars have been received giving notice of the following exhibitions:

Forty-third Exhibition of American Institute of the City of New York will open on the 9th of September and continue until late in November. Under the superintendence of Mr. Charles Wager Hull, whose interest in photography has made his name as familiar as a household word to the fraternity, we may expect our art to receive the full recognition that its position and importance demands, and hope photographers will be liberal in their efforts to exhibit.

Inter-State Exposition of Chicago will open September 9th, and close October 10th, 1874. Potter Palmer, President; John P. Reynolds, Secretary.

Fifth Cincinnati Industrial Exposition, 1874, will open September 2d, and close October 3d.

Franklin Institute of Pennsylvania. Exhibition to open in September and close in October.

These Exhibitions afford unequalled opportunities to photographers to exhibit their work, as it is brought before a very large number of people, and to those who do good work they are invaluable as advertising mediums.

THE case of Wing vs. Tompkins, of Grand Rapids, Mich., will be argued September 28th. All interested in this matter will, no doubt, be glad to hear of a decision being reached.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to decaive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

FOR SALE .- A most desirable and well appointed photograph gallery in Atlanta, Ga.; population 35,000. The great railroad centre and live place of the south. A rare chance for a good artist. Will sell low for cash. For particulars address D. W. BOWDOIN,

331 Whitehall St., Atlanta, Ga.

HANCE'S PHOTO. SPECIATIES. Please read my four page advertisement. Especial attention is called to my new BATH PRESERVATIVE. Photographers all over write, viz.: "Your DOUBLE IODIZED COLLODION works splendid, and its keeping so well, is an excellent feature."

USE HANCE'S SPECIALTIES. ALL DEALERS KEEP THEM.

WANTED .- A respectable young man as chief operator in a gallery in Petersburg, Va.; must be good on positions, make a good negative, and retouch well. Address

C. R. REES & Co., Richmond, Va.

Lea's Manual of Photography, \$3.75. See Advertise-Third Thousand.

THE Portable Gallery advertised in June number, can be bought now with backgrounds, chairs, mattings, head-rests, stove, benches, and other numerous articles, costing \$475 for only \$235. Purchaser, if he is a second-class artist, is bound to clear from \$300 to \$400 a year here; can easily prove it. Being compelled to leave must sell as quick as possible. Why do not artists read this. Write or come to see it. Address

F. DAEL, P. O. Box 141, Versailles, Ky.

Linn's Landscape Photography is the book for the season.

FOR SALE, CHEAP .- A traveling photograph saloon, 9 x 24 feet, with stock and fixtures. For particulars address

M. A. E., Photographer,

32 Portland St., Worcester, Mass.

USE WAYMOUTH'S

"Mourton will furnish cuts of the Rapid Photo. Washer, free of charge, to dealers issuing catalogues, upon application!"

Criswold's Stereoscopic Compositions. Read advt.

Wanted .- For Valparaiso, South America, a first-class operator; must be well up in portrait and landscape photography. A young, unmarried man preferred. Address

Ag. Schutz, 44 St. Mark's Place,

New York City.

Or, parties in Philadelphia may apply at the office of the Philadelphia Photographer.

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.

"BUSINESS IS BUSINESS." - A cash customer can buy a gallery in the capital of a western state at \$1000 less than an actual invoice. Prices, \$4 for cards, and doing a business of from \$8000 to \$10,000 per year. If not sold before October 1st will lease for one, two, or three years. Gallery and fixtures will invoice about \$4000. Address

"L," care Benerman & Wilson.

PARTNER WANTED in an established STOCK BUSINESS, in a Southern city. Credit and business good, but can be very largely increased with another partner. Address AUGUSTUS, office Philadelphia Photographer.

WE have received from Messrs. Benj. French & Co., a price-llst of Frames, in great variety, including the necessary ffxtures for hanging, such as screw eyes, picture cord, &c. Holmes Stereoscope, in every grade of finish and price. Also, a price-list of (Gem) Ferrotype Camera Boxes and Lenses, all fitted with Darlot Lenses.

Trapp & Munch received the Medal of Merit for their Albumen Paper, at the Vienna Exhibition. VIGNETTE PAPERS.

WANTED, GALLERY.—I wish to rent a furnished gallery, in a good city, with privilege of buying; have run galleries of my own for ten years. Address, with full particulars,

A. C. WOODWARD, Metropolis, Ill.

Photographers in the South and Southwest who would buy goods to their best advantage would do well to patronize the Stockhouse of Chas. A. Wilson, No. 7 North Charles St., Baltimore, Md. Send a trial order.

We awake to a sense of the condition of things, and the photographic fact that we are living in an age of progress. The "optics" of the "sons" of "light" are greeted with the finest goods the heart could wish, or the hands desire to manipulate, and even the humblest of the craft may have the best apparatus, for the price has been placed so low that it would be folly to purchase other than that branded "perfect." which is made by the American Optical Co.

The whole country, more especially the WEST, can be supplied from the "Great Central," at Chicago; Chas. W. Stevens will give your orders prompt notice.

Griswold's Stereoscopic Compositions. Read advt.

Fine Goods.—Nothing made by the American Optical Co., ever surpassed those Camera Boxes exhibited at Chicago, and, of course, that wide-awake dealer, Chas. W. Stevens, of the "Great Central," could not resist the temptation of owning them. He purchased the whole display of Scovill Manufacturing Co., and has what was not sold by him during Convention, in his spacious warehouse, ready for the orders of those who appreciate the best.

Linn's Landscape Photography is the book for the season.

LIKE A DREAM.—It seems to note the progress of photography and everything connected with the science. Such beautiful and porfect apparatus, such appropriate and varied accessories, and the chemist's skill fully tested in giving the "Sun worshippers" purest products of the laboratory, and, to wind up the picture, we are favored with dealers that "know their business," the most popular being none other than Chas. W. Stevens, proprietor of the "Great Central," Chicago; he is alive, and ready for the photographer.

"Moulton can firmish either clock-work or hydraulic motors to run his washers; further particulars soon." Respectfully,

L. V. MOULTON.

If you want to improve your work and save time get the Rapid Photo-Washer.

Wanted.—About the 15th of September or 1st of October, an operator to take charge of a newly fitted-up gallery. A single gentleman who understands lighting and posing will find a permanent situation by addressing

HUMPHREY, care of Lock Box 16,

Parkersburg, Va.

VOIGTLANDER & SON LENSES.

Ryder's Art Gallery, 239 Superior St., Cleveland, Ohio, Dec. 18, 1872. Benj. French & Co.

Dear Sirs:—Twenty-four years ago I bought and commenced using my first Voigtlander Lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good.

Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before.

Yours, truly,

J. F. RYDER.

Composition Pictures, by Messrs. Robinson & Cherrill, For Sale.—The beautiful composition and combination pictures exhibited at the Chicago N. P. A., executed by Messrs. Robinson & Cherrill, and for which the Foreign Medal was awarded, are for sale at the following rates: Passing Stranger, \$5; The Gleaner, \$5; Study from Nature, \$5: The Gypsy, \$5; Lady Reading, \$5; Little Girl, \$5. Only one copy each. Specially fine prints. On exhibition and for sale at the office of Benerman & Wilson, Philadelphia.

Lea's Manual of Photography, \$3.75. See Advertisement. Third Thousand.

FOR SALE.—The most convenient little gallery in the city; it was refitted throughout last fall, and furnished with new apparatus of the best description. Rooms must be seen to be appreciated. Will be sold cheap for cash.

WM. COWLEY, 294 Pearl St., Cleveland, Ohio.

USE WAYMOUTH'S VIGNETTE PAPERS.

Baltimore

Baltimore Baltimore

Stockhouse, Stockhouse, Stockhouse,

Chas. A. Wilson,
Chas. A. Wilson,
Chas. A. Wilson,
No. 7 North Charles St.
No. 7 North Charles St.
No. 7 North Charles St.

Wanted, Operator.—One who understands copying. Address with references,

C. H. Morgan & Co.,

47 Summit St., Toledo, O.

Griswold's Stereoscopic Compositions. Read advt.

FOR SALE, very cheap.—1 8.4 Voigtlander lens, central stop, first-class instrument; 1 8.10 Swing Camera Box; 1 "Perfect" Camera Stand; 1 licensed Woodward Solar Camera; 1 Scovill Excelsior Roller Press, 12 in., nickleplated. W. P. Chase.

Elmira, N. Y.

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.

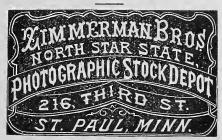
FOR SALE.—The finest Photographic Parlors in the handsomest city in the state of New York. Entrance next door to P. O. Cash only buys it. Business for three persons, and lively. Address Well G. Singhi, Binghampton, N. Y.

Wanted.—Agents to travel through the several states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

For Sale.—At Manch Chunk, Pa., Brown's (deceased) Photographic Gallery; fixtures and stereoscopic view negatives, of the coal regions, cheap. A photographer can open immediately, print the views and sell all he can make during the season. Over 90,000 visitors last season.

Address Reuben Knecht, Easton, Pa.



USE WAYMOUTH'S

SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

As We cannot have letters directed to our care unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

By an operator that has eight years' experience in the business, and understands all the branches of photography. Address Tweedle, Richwood, Ohio.

By a young man of steady habits, as assistant operator or printer, or would take a good gallery on shares. Address Box 139, Wilton, N. H.

As operator or retoucher, in a good gallery; best of reference given. Address Retoucher, care C. A. Wilson, Photographic Stock Dealer, 7 N. Charles St., Baltimore, Md.

In a first-class gallery, as printer and toner. Address B. G. A., care C. A. Wilson, Photographic Stock Dealer, 7 N. Charles Street, Baltimore, Md.

By an English photographer of eighteen years' practice, an appointment as operator, artistic retoucher, colorist, &c. Address Pyro, 215 Pearl Street, Brooklyn, N. Y.

By a young man who thoroughly understands printing, &c.; also, the use of the solar camera. Can assist generally; is not afraid of work; best of references. Address "F," Lock Box 19. Shelbyville, Tenn.

By a young lady who has eight years' experience in finishing photographs in ink and water colors. Address Artist, Box 138, Rockland, Me.

As negative retoucher, good references. Address J. D. Junor, P. O. East Saginaw, Mich.

By a strictly first-class positionist and operator (no Sunday work). Address M. S. Williams, care of Scovill Manufacturing Co., 419 and 421 Broome Street, New York. Refers to Messrs. Bogardus and Gurney.

By a young lady in a gallery as first-class operator, poser, or printer. Can give good reference. Address Anna MacBride, 610 Reed Street, Philadelphia.

As operator, either in portrait or Landscape photography, or would accept a position in a photographic stock house. Can furnish first-class references as to character and ability. Address Chas. L. Wright, care E. Bierstadt, 58 and 60 Read Street, New York.

A lady would like an opportunity, in a photograph gallery, to take charge of reception room and finish negatives. Address, for two weeks, Miss L. M. F., 27 Beach Street, Boston, Mass.

By a lady who has had nine years' experience in a first-class gallery, to attend to reception room, mount and retouch pictures. Would be willing to make herself generally useful. Good references can be given. Please address Miss R. A. Gregory, 21 Court St., Utica, N. Y.

By a young man of eight years' experience, as a first-class operator. A. C. Hopkins, 132 Genesee Street, Utica, N. Y.

By a German, able also to speak French, a situation as operator. First-class, guaranteed. H. Hammenstede, care Anthony & Co., New York.

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SOCIETY CALENDAR.

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Photographic Section of the American Insti-tute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Associution, Brooklyn, N.Y.—Fourth Tuesday in each month, at 179 Montague Street. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary.

Photographic Society of Philadelphia. — Ad-

journed.

Pennsylvania Photographic Association, Phil-

adelphia .- Adjourned.

Chirogo Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State

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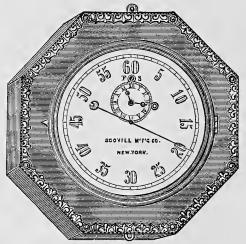
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We will still keep a well assorted stock of

PICTURE FRAMES (OVAL AND SQUARE), VELVET CASES, COLLODIONS,

VARNISHES, PURE CHEMICALS, &c.,

which can be had at the lowest rates; as well as

PASSEPARTOUTS, STEREOSCOPIC VIEWS OF ALL PARTS OF THE WORLD, STEREOSCOPIC INSTRUMENTS, &c.

We also have a full line of CAMERAS of the best makes and latest improvements, CAMERA STANDS, HEAD-RESTS, BACKGROUNDS, and all Accessories necessary to the Photographic Art. We would call the attention of photographers to the fact that we manufacture SQUARE FRAMES, and so can generally ship any frames (especially odd sizes) the same day they are ordered. We would also call attention to the noted ALBU-MEN PAPERS, Morgan's and H. Extra, the best for warm weather, for which I am the agent.

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Successor to Haworth & McCollin, 624 Arch St., Philadelphia.

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STONE ACID DISHES.

To	hold	$1\frac{1}{2}$ gal	lons,	each,									\$2	00
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SOLID GLASS DIPPERS (two prong).

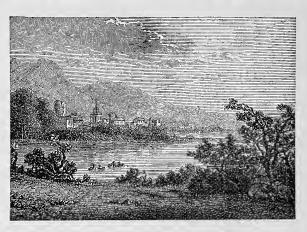
No.	17 in	ches	lon	g,				:						\$0	35
"	2-12		"								٠.				45
	3-13														
"	4-15	4.6	6.							.•					60
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LINN'S LOOKOUT LANDSCAPE PHOTOGRAPHY.

A Pocket Manual for



the Landscape Photographer,

YET CONTAINING MANY USEFUL HINTS FOR ALL PHOTOGRAPHERS.

By the Late Prof. R. M. LINN,

LOOKOUT MOUNTAIN, TENN.

This admirable little work was published last fall, a little too late for the season. It is now confidently recommended to every photographer about to do any class of work, *outside* or inside the skylight.

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Taking the Field. Hints on Printing and Finishing. To Print Clouds. Toning Bath for Views.
On Fixing and Washing Prints.
Suggestions on Mounting Prints. To Cut Stereoscopic Prints. To Mount Stereoscopic Prints. Formulæ and Processes for Landscape Photography. Ever-ready Iodizer for Landscape Photography.

Remarks on Preparing and Using Iodizer.
On the Management of Flowing Bottles.
On the Preparation of Plain Collodion.
The Silver Bath for Negatives.
To Renovate an Old Negative Bath.
To Prepare Carbonate of Silver.
Permanganate of Potash—Its Use in our Art.
Preparation and Using of Developer.
Fixing Solution for View Negatives.
On Redeveloping and Strengthening Agents.
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Formulæ for Silvering Bath, &c.

Formulæ for Silvering Bath, &c Failures in Silvering Albumenized Paper. Failures in Toning Photographs. Failures in Fixing Photographs. Instantaneous Photography. View Photography Financially Considered. Stereoscoping Applied to Portraiture. Concluding Remarks.

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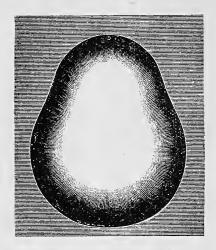
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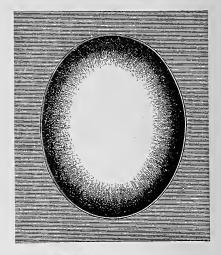
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ARE NOW MADE OF TWO SHAPES, as shown in the drawings above. They consist of finely gradated, lithographed designs, mounted on protecting sheets of non-actinic paper, and are the light est, neatest, and best means of producing vignette pictures ever offered. :

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of all pictures, the Higherty is the most artistic,

When properly minted. But the clumsy devices generally in use for printing them, or rather for blending the shading about the figure, produce but very few really artistic vignette pictures. Either the shading is too intensely dark, not gradated in tint at all, or it shows an ugly direct, decided line, which is very repulsive. The shading should blend gradually from the dark tint nearest to the figure, off into the white background. The results are then soft, artistic, and beautiful. The easiest and best way to secure them is by the use of

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Nos. 1, 2, 3, 4, and 5, ass	orted	sizes and	colors	rs, for Cartes, by number, per dozen 50
" 6, 7, 11, 12, and 13		"	"	Large Cartes and Victorias, by number, per doz
" 8, 9, 10, 14, and 15 " 16, 17, and 18	"	"	"	Cabinets and Whole-size, " "

(SEE OPPOSITE PAGE.)

When ordering, state the number and color you want. The Waymouth Vignette Papers are an English invention, and are becoming so universally used in Europe that we have pleasure in introducing them to our patrons.

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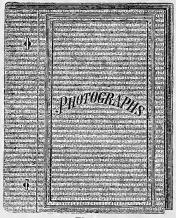




Fig. 2.

Fig. 1.

Frequent inquiries for something at a much lower price than an album, for the holding together and preservation of photographs, has induced us to manufacture an article which we think will meet the want.

IT SERVES ALL THE PURPOSES OF AN ALBUM, FOR

A Series or a Set of Portraits, A Series or a Set of Landscapes, A Series or a Set of Photographs of any kind,

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They are made with expanding backs, so that from six to twenty-four pictures may be inserted in one cover. The pictures are mounted in the usual way, and then strips of linen, or strong paper, of the proper width, are pasted on one edge, by which the picture is inserted and held in place in the cover by a paper fastener. Fig. 1 represents the cover, with the perforations in the back, through which the spreading clasps of the paper fastener bind the whole together. These are so easily inserted or removed, that pictures are readily put in or taken out at any time. Fig. 2 represents the picture, with the guard pasted on ready for insertion. The arrangement is simple, and we are sure will be readily comprehended. For binding together views of your town or city, or portraits of celebrities, they are very neat.

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For Photograph. Card Size.									Per hundred. \$10.00
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EXTRA HEAVY COV	ERS	S.							
5-8 Size, .					4.50				33.00
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No. 7 No. 7 No. 7 NORTH CHARLES STREET, BALTIMORE, MD.

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BY FRITZ LUCKHARDT, VIENNA, AUSTRIA.

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Madison Square (28d Street),
RECEIVED HIGHEST AWARDS IN
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FOR PHOTOGRAPHS.

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W. KURTZ.

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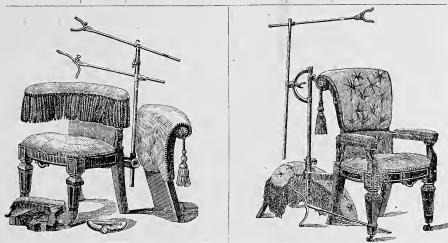
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Enabling the photographer to successfully secure every variety of pose with facility and reliability. It is admirably adapted to the varying necessities of female portraiture, and is equally suited for children, for vignettes, or for full lengths. The BOWDISH CHAIR is substantial in construction, elegant in design, and rich in upholstery and finish. Those who have purchased them, speak in the highest terms, as will be seen by the following



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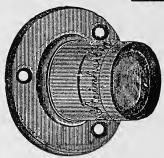
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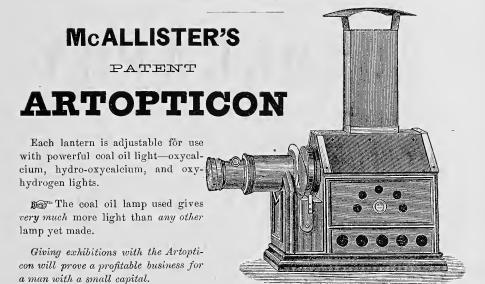
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[&]quot;I always take great pleasure in recommending the Steinheil Lenses, and you can say almost anything in their favor for me. They possess all the merits of higher priced lenses, and if I was starting again I should stock myself with them."—B. W. KILBURN.

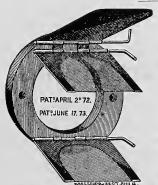
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These tinters are used for giving to magic lantern pictures various beautiful tints or colors, as blue, red, yellow, green, crimson, &c., &c. They can be adjusted to the lantern, either on the end of the front lens, or may be screwed to the back of the front lens-holder, as in the case of the Stereo-Panopticon and Educational lanterns. On the Artopticon, they are placed on the end of the front lens tube.

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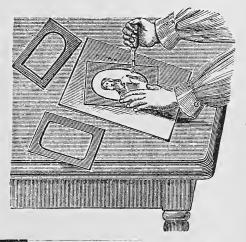
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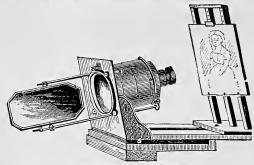
- 1. Oriental Room, east.
- 2. " west.
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- " ...
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- 14. Egyptian Room, west.
- 15. Grand Lodge Room, west.
- 16 " east.
- " " 17. south
- 18. Banqueting Room.
- 19. Exterior View of the Temple, south.
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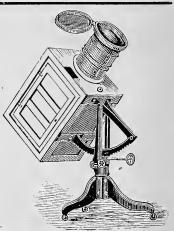
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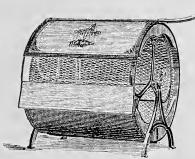
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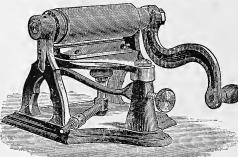
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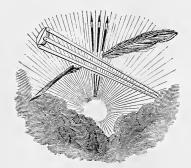
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SOMETHING NEW! See Advertisement inside.

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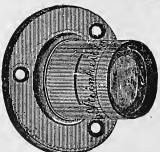
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J. H. KENT,

ROCHESTER.

Philadelphia Photographer.

Vol. XI.

OCTOBER, 1874.

No. 130.

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OUR PICTURE.

THE charming specimen we present this month requires but little to be said by us. The artist is well known to most of our readers, and seldom invites us to anything stale or uninteresting. In this case he has ventured to depart from the popular, easy, and well-beaten track of soft and delicate chiaroscuro, and to strike out with something so bold and vigorous as to almost startle us with its brilliancy. It is this feature that commends it to our study and consideration. A less skilful artist than Mr. Kent would hardly have been safe in attempting such a picture, but the harmonious handling of the strong lights and shadows, together with the easy, natural pose, and the neatness and taste with which the whole is arranged, show the master hand, and demonstrate the skill with which the work was executed.

In the lighting Mr. Kent used his handscreen, which has now come into such general use, in one form or another, and which was presented by him to the National Photographic Association.

Mr. Kent's formula has been given so often, and is so much the same as all good photographers use, that he has not repeated it with this picture. This is rather intended to illustrate a style of lighting rather than any chemical formula.

The prints were burnished by Entrekin's Oscillating Enameller, the most complete

machine that has ever been devised for such work. It will be remembered that for this enameller Mr. Entrekin was awarded the Scovill Gold Medal at the Chicago Convention.

The printing was done by Mr. William H. Rhoads, on the Albion albumen paper, and is a fine example of careful work in this department.

VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

Х,

BE it known to you, and it is hereby made known unto you, that in Switzerland I had a good time. Such any one who visits that delectable land would expect, but I had an unusually good time. I got up before the sun and journeyed, day after day, alpenstock in hand, through some of the most famous passes; kept company and chatted with some of the noisiest rivers you ever imagined; tested my voice with some of the most rollicksome of cascades to see who could raise the most deafening echo; tramped over some of the most beautiful highways; scrambled up several of the hardest peaks, taking my life in my hand; traversed glaciers whose crevices open wide to catch you, and whose beauty overpowers you more than the danger they present; I floated over lakes whose charms

have been sung by greater than I; rested in some of the quaintest of villages; saw chains and groups and ranges of mountains without number; stood at safe distances and saw the avalanches give their mad leaps, seemingly carrying a whole mountain-side down with them, and creating a smaller mountain with their débris; I carried an umbrella over my head to protect me from the sun while I tramped the snow under my feet; I rode in diligences; I jabbered with the people, and I sighed for a camera.

I may not detain you with details. Books upon books have been written upon the Alps, and photography has illustrated them. But it is my work to tell you more of what I saw photographic, much as I would like to do the other. I do not think any one ever had a better, grander trip in the Alps than I had, and yet I was wicked enough to want more. I shall want to go back and take it on foot for months, for really on foot is the true way to see the Alps, and it can all be done in that way, for the roads are capital. I was curious to see what difference exists between the Alps and our own White Mountains. It is quite as silly to attempt a comparison between them as between St. Peter's at Rome and Milan Cathedral. At Interlachen, where I worshipped at the feet of the Jungfrau, the loveliest of all the Alps, I was fortunate in being able to visit the large photographic establishment of Mr. A. Gabler, a gentleman who has scrambled over these mountains pretty thoroughly with his camera from Italy to France. This visit caused me to add considerable to the weight of my satchel, for one has a great propensity for buying photographs of all the objects one has seen, and when the work is as good as Mr. Gabler's is, it is irresistible.

One curious thing I noticed among many others, pertaining to the costumes of the Swiss peasantry, was the seeming inseparableness of the women and a certain kind of basket which they wore on their backs. They seemed to have been born with them, and whether empty or full of stores or hay, it was just the same to them, apparently. I noticed that it was difficult to turn around with them, and when any one was heard

coming up behind, the bearer of the basket would halt in order to see the passer-by. One of these burdened creatures, attempting to both walk and look, fell, and from her being master of the basket, the basket became master of her!

Beautiful Switzerland! How I did dislike to leave it. How much more enjoyment I had too because of the pains I had taken to study the effects of light and shade. I am sure I saw and enjoyed much, very much that I would have otherwise passed by. It seems to me a lover and student of nature is given sweeter communion, and a brighter, better understanding of her works than he who is not, is allowed to have.

From the Alps straight to Paris, via Basle, Berne, &c., stopping only at Dornach, on the Rhine, to see Adolph Braun, the great carbon printer, and his great manufactory, for such it is, and there is no other just like it or as large in the world. Here the beautiful carbon process, which has been attempted and thrown aside by so many, and which no one in this great country works to any extent, is conducted on an immense scale, and for the two days I was there I found much to interest me in the establishment of Mr. Braun. The kindness I received from him made me want to remain two weeks. Photography had already made us familiar with each other's faces, and a long correspondence had made us friends. He employs over one hundred persons constantly, and with him I visited the several departments. Carbon tissue, as you remember, consists of a coating upon paper, of gelatin mixed with a pigment, and made sensitive to light by bichromate of potash. It is then printed the same as albumen paper, transferred to a sheet of caoutchouc paper, the picture developed by means of hot water, and then transferred again to the sheet of paper upon which it is to remain permanently. And here we see all these operations, in all their details, actively engaged in by the hundred or more employés, and be assured it is done on a large scale. Here are the grinding machines for grinding the pigments, ten in a row, wagging their heads in all directions, like so many lunatics who have lost control

of their necks, but at the same time accomplishing their purpose; the room where the paper is coated, by allowing it to pass over a tank of the melted gelatin mixture by means of rollers, the paper just taking up enough for the purpose as it passes over; the drying-room, where we see thirty strips of the carbon tissue, 15 feet long and 3 feet wide, hung there yesterday evening to dry over night for the consumption of the printers to-day; the printing-room, where is indeed a busy, busy scene-men handling negatives, great and small, and tearing off the paper as wanted; the transfer-room, where the caoutchouc paper and the tissue are pressed together, and then, with the aid of the benzine, they are separated, and the transfer made; the developing-room, where the great tanks are steaming, and the workmen busy and as attentive as all good printers should be when they tone their prints, for the quality of the carbon print depends much upon the length of time it remains in the warm water; the drying-room, where the prints are dried previous to the second transfer; the mounting-room, where gum arabic is the mountant; the touching-out room, where all defects are obliterated, and where the titles are put upon the pictures, mainly by hand; the pressroom, where ponderous presses finish the work; the storerooms, where the finished pictures are kept; the sample-rooms, where proofs of all the negatives are kept; two skylights, the one for copying and the other for portraiture; the offices, the engine-room and engine, and last, but not least, a large basement devoted to the Woodbury process, which Mr. Braun also uses largely.

Photographic printing on such a scale I had never seen before; neither had I ever witnessed such a scene of activity in the interests of photography.

Mr. Braun turns out from two to three thousand pictures every day. Almost everything in the photographic line he makes; but the specialty, which has given him fame, and entitles him to the everlasting gratitude of the civilized world, is the reproduction, in indelible form, of the great masterpieces of art which are found in the galleries of Europe. As literature for a thousand years was imprisoned in cloisters,

so has art for centuries been imprisoned in the few great museums of Europe. But we have come upon a new dispensation, and it is possible now for every school and college in America to possess faithful copies of the immortal masterpieces of the chisel, the brush, and the pencil, and every boy and girl in their teens may know Phidias, Michael Angelo, Raphael, and the rest of the "great cloud of witnesses," by a sight of their great deeds.

How many years I longed for the privilege of wading through his sample portfolios, and here I did it, and made selections which now not only bring to my mind constantly the original gems among which I have been wandering, but also are a continual help and delight to me whenever I can turn aside from work and plunge into the bewitcheries of the beautiful.

Mr. Braun has over 10,000 negativesstored in his works, in strong boxes, as I saw, most systematically numbered and classified, and at his villa near by is a set of duplicates. Some of these negatives are of immense weight, on plate glass. I never saw an establishment where all things worked more harmoniously together, or where the results were so beautiful; neither did I ever see a man who seemed so utterly wrapped up in his chosen art as Mr. Braun. The work he has undertaken, alone, is a magnificent one, and he has been truly called the "Guttenberg of Art." He hasplaced within the reach of all these copiesof the works of the old masters which, heretofore, only the favored few could goto the galleries of the originals to see.

When I think of the days I have spent with him, I feel as if I had been with one whose fame is more deserved than that of poet or statesman. It was a privilege not to be overvalued.

But what of Paris? Better to ask what not of Paris. In that wonderful city reside some of the most industrious photographic experimentalists alive. In and about it are some of the largest and most noted places of photographic interest in the world, and the wondrous Louvre, the Luxembourg, and many other splendid art collections. And you may know that with such to attend to I did not have much time to devote to Paris

proper. Kindred spirits were not wanting to take my arm and lead me in the right direction to make the best of my time. If an editor has no happiness at home, he certainly has the opportunity to make good friends abroad who prove friends indeed (as mine did in Paris, and everywhere I went) when he calls upon them, and that is happiness.

About the time of my arrival in Paris, Mons. Liebert had just begun an excitement with his new work on photography, which is noticed elsewhere. He had created considerable excitement too, by a chapter therein on the production of enlargements from small negatives, for Mr. Edwards was then calling upon the public to purchase his process, and Mons. Liebert rather checkmated his English co-worker by this publication. It is a process too good to be thrown aside, and I give it to you here because I believe I could not give you anything of more practical advantage to you. There is money in it, and it ought to be worked at until perfection is attained. M. Liebert is very exact. His instructions are as follows:

"First method. Place in a dish the whites of four fresh eggs, which will give about 100 grammes ($3\frac{1}{5}$ oz. troy) of albumen, then add 75 grammes ($2\frac{2}{5}$ oz. troy) of distilled water, in which have first been dissolved,

Iodide of Ammonium, 4 grammes (61\frac{3}{4} grains).

Bromide " 1\frac{1}{2} gramme (23 grains).

"Beat them to a froth and allow them to stand twenty-four hours; then filter, and you will have an iodized solution of albumen.

"Take a plate that is thin, very pure and flat, of the size of the small negative that you wish to produce, or of a fourfold dimension, which is to be divided by a diamond, after the preparation. When it is well cleaned coat it with a film of neutral albumen diluted with three times its volume of water, in order to make sure of its being perfectly clean. When this film is entirely dry, collodionize as usual with a good iodized collodion; when the film has set, which requires from five to six minutes, wash under the tap in filtered water, until the collodion no longer shows greasy marks

Finish by washing in distilled water, drain for a short time, then cover with five or six successive coatings of the iodized solution of albumen described above; dry in a place free from dust, placing the plate on blotters against the wall. The plates thus prepared may be preserved indefinitely in grooved boxes. It is better to prepare a quantity at a time, so as not to be obliged to recommence each day this long and delicate operation.

"When you wish to make a positive by transparency, dip this plate, perfectly dry (using, if it is necessary, an alcohol lamp), into a new bath of aceto-nitrate of silver, thus composed:

"After an immersion of one or two minutes wash again in distilled water and dry with care, but, this time, away from the light. When the desiccation is complete, place this plate under the negative in a pressure-frame, and now expose to diffused light. An exposure of from five to fifteen seconds is generally sufficient, according to the intensity of the negative and of the light; then carry to the laboratory to develop as follows: On leaving the frame, the plate is placed in a dish filled with distilled water to moisten the coating of albumen, it is then covered with the developer, composed of,

Distilled Water, . 1 litre $(1_{20}^{1} \text{ quart})$. Pyrogallie Acid, . 7 grammes (108 grains). Acetic Acid, . 30 c.c. (1 fluid oz.).

"Under the action of this reagent, the image presents a weak appearance; now add a few drops of the following intensifying solution:

Distilled Water, . 1 litre, $(1\frac{1}{20}$ quart). Nitrate of Silver, . 20 grammes (308 $\frac{1}{2}$ grains). Citric Acid, . . 5 " (77 grains).

"And continue the development until the image has arrived at the requisite degree of intensity. The action of the developer is stopped by a good washing, and the fixing is done by means of hyposulphite of soda, or of cyanide of potassium, very much diluted.

"If during the development the image should be mottled, rub lightly the surface with a tuft of cotton-wool. Under this friction, repeated several times, the image will become perfectly transparent.

"Finally, after the washing that follows the fixing, plunge the plate into a bath composed of

Distilled Water, . 2 litres $(2\frac{1}{10})$ quarts). Chloride of Gold, . 1 gramme (15 $\frac{1}{2}$ grains).

In which the image will acquire a sepia tone, suitable for the gradual transmission of the light passing through the positive, to produce a large negative, strong in the blacks.

"It might be advisable, according as the little negative to be reproduced is more or less hard, to modify the color of the positive by transparency, by covering it, before the gold bath, with a coating of bichloride of mercury, much diluted. This positive by transparency, thus finished, is dried; then, should it be too gray or hard, place it in contact with a very thin ground-glass, the two polished sides of the glass being in contact, so that the ground side should be on the outside as well as the image; surround with a gummed paper, retouch if necessary on the ground side of the glass, which requires a few minutes, then proceed to obtain the large negative as will be explained further on.

"As will be seen this is no new invention, for with the exception of a few details it is the albumenized collodion process of Taupenot modified, applied to positives by transparency; this is why we do not understand that so many photographers should have bought the Edwards process. We are convinced by the results that have passed under our eyes, that his process cannot be other than the one described by us, and used by almost all those who make stereographs on glass.*

"Second method. The second method

consists in operating on the collodio-chloride of silver, as is described further on.

"Prepare separately the following solutions:

Α.

 Sulphuric Ether,
 . 200 c.c.
 (6 \(\frac{2}{3} \) fl. oz.).

 Alcohol,
 . 100 c.c.
 (3 \(\frac{2}{3} \) fl. oz.).

 Gun-Cotton,
 . 5 grammes (77 grains).

"After resting a few days decant the clear portion.

В.

"The chloride of magnesium is finely pulverized in a glass mortar to facilitate the solution, which is to be then filtered.

C.

Alcohol, . . . 20 e.c. (§ fl. oz.).

Nitrate of Silver, . 4 grammes, (61% grains.)

Distilled Water, . 10 e.e. (§ fl. oz.).

"The nitrate of silver is pulverized, then dissolved in the distilled water; add the alcohol and filter.

D.

Alcohol, . . . 18 c.c. (\(\frac{3}{5}\) fl. oz.). Citric Acid, . . 0.50 gramme (7\(\frac{2}{3}\) grains). Boiling Water, . 2\(\frac{1}{2}\) c.c. (\(\frac{3}{5}\) fl. dr.).

"Dissolve the citric acid in the boiling water, add the alcohol, and filter.

"To prepare the collodion pour the solution B into the solution A; agitate strongly, then add the solution C. Cork the bottle and shake for a few minutes; then add the solution of citric acid D. Agitate again, and allow to rest for eight or ten days. This collodion, thus prepared, improves with age; but it must be kept away from the light, in a yellow glass bottle.

"Now prepare a solution of albumen in three times its volume of distilled water, and filter through a fine sponge.

"The plates, well cleaned, are coated with albumen, which makes certain their absolute cleanness. When entirely dry, flow the collodio-chloride very slowly, on the albumenized side, so as to obtain as thick a coating as possible. Allow them to dry spontaneously, where there is no light or dust; then place them in grooved boxes perfectly clean.

^{*} The preparation of albumenized plates is a delicate and long operation; the want of practice may occasion many failures. We advise all photographers, unfamiliar with these manipulations, to buy plates already prepared. It will suffice to sensitize them before use in the acetonitrate of silver bath mentioned above.

"Thus prepared the plates may be preserved for several months, if kept in com-

plete obscurity.

"Before exposing the plate under the negative it should be treated with the vapors of ammonia so as to avoid solarization. Use for that purpose a glass box, the grooves of which are placed horizontally. Place at the bottom a small capsule containing 15 or 20 grammes (231 or 308 grains) of pulverized earbonate of ammonia; the plate is slipped into one of the grooves, at 8 or 10 centimetres (3 to 4 inches) above it, and exposed for four or five minutes to these vapors, then left to the air for ten or fifteen minutes more, protected from the light. It is now dried with care over an alcohol lamp, and then placed in the pressure-frame in contact with the negative to be copied. Cover with a sheet of black paper, close the frame, and expose to full light.

"The print should be very strong, for it will lose a great deal in the toning and fixing baths. The time of exposure is rather longer than for albumenized paper; but it is easy to follow the progress of the printing without being obliged to separate the two plates, since the transparency of the glass allows the image to be seen from the back, by raising the paper cushion which is under the hinged planchet of the frame.

"The image, printed to the proper strength, is washed in ordinary water and placed in a flat dish containing a toningbath, as follows:

Distilled Water, . 1 litre $(1\frac{1}{20}$ quart). Sulphocyanide of Ammonium, $\left.\begin{array}{c} A.\\ 1 \text{ litre} \end{array}\right\}$ 40 grammes (617 grains). Hyposulphite of Sodium, . . $\left.\begin{array}{c} 3\\ 3\\ \end{array}\right.$ (46 grains).

Distilled Water, . . 1 litre $(1\frac{1}{20} \text{ quart})$. Chloride of Gold, neutral, 1 gramme (15½ grains).

"Before making use of them, mix the two solutions in equal portions, and in sufficient quantity to cover the plate which is placed at the bottom of the dish.

"To obtain strong negatives the toning should incline to red rather than to violet; this is easily obtained by using a little more of the solution A than of the solution B; besides, the tone of the print may be varied

at will, by giving more or less time to the action of the toning-bath, which is very important for this kind of work; for we know that light passing more easily through the violet positive than through the one with a brown tint, the large negative, which results from a sepia red transparency, will be stronger than one obtained from a violet positive. Consequently, by this means, we may obtain a very soft large negative from a small hard positive, and vice versā.

"When the print has obtained the desired tone, fix by plunging it, for five or six minutes, into a dish containing a solution of hyposulphite of soda at 8 per cent.

"The positives obtained by this process are of admirable delicacy and transparency, consequently the large clichés produced by them have all the qualities of the small negatives used in their reproduction. On account of the facility with which it may be worked we prefer it to the albumen process, whose manipulation is much more delicate, and whose results less certain on account of the time of posing, which can only be estimated. Nevertheless, in the dark days of winter, the albumen process being more rapid, we can obtain by it very good positives when the collodio-chloride process is often incapable of giving us a strong image."

Mr. Liebert has introduced, quite recently, two modifications in his method, which had provoked some criticisms of detail in the English press, and especially from Mr. Sutton. Here are these modifications:

"The first consists of the substitution of the intermediate transparent plate by a ground-glass, very delicately softened; by this means I do away entirely with the work of retouching, and the simple interposition of this ground-glass, whose distance in front of the sensitized glass varies from 2 to $2\frac{1}{2}$ millimetres ($\frac{1}{12}$ th of an inch), is sufficient to give great softness to the cliché. The sharpness is some what diminished, but the general ensemble appearance of the portrait is very harmonious and very agreeable to the eye.

"Finally, the last improvement simplifies still further the operations, since I completely do away with the intermediate plate.

"The whole question may be resumed in

the obtaining of a positive by transparency, possessing the indispensable qualities to produce a large negative having strength and depth in the blacks, delicacy, softness, and good modelling in the whites, general harmony, and perfect sharpness. To obtain these, I operate on opal glass, repolished on one side and softened on the other, and coated with white gelatin containing a small quantity of sulphide of strontium.

"I use the collodio-chloride of silver specified in the second process of my treatise (see above). The image should be very strongly printed, then toned and fixed, as previously indicated.

"A positive, thus obtained, produces, I repeat it, clichés of great softness in the whites and of excellent value in the blacks, on account of the sifting of the light through the opaline coating."

I trust that these details will be useful to makers of lantern slides.

To me one of the most interesting places in Paris is the establishment of Messrs. J. Levy & Co., who make nothing but photographic transparencies on glass for the stereoscope, magic lantern, and for windows, etc. Their predecessors, Messrs. Ferrier & Soulier, discovered a process, which has always been kept secret, of producing a transparency that in detail, delicacy, and color surpassed all competition, so that a couple of dozen medals were awarded them in a few years. And deservedly too, for their pictures were superb. They imparted their secret to their successors, and I find them here producing the same exquisite results. Their establishment is a busy one, and the labor is so systematically divided that there is no clash, no bad results-all is harmony and perfection of result. As I went from department to department, I could not help but be charmed at the extreme care, and cleanliness, and nicety of manipulation practiced by each employé. You know that a small speck on a lantern slide will prove a very large spot when enlarged upon the screen, so that here all precautions must be taken to preserve the film as clean and clear as possible until it is sealed up for the shelves of the dealer. What splendid paper printers these men would make, thought I, as I watched them.

And how much better our paper prints would be if our printers were all as careful as these men arc. The process practiced here is the albumen process, and although I did not obtain the secret, I saw that much, and as it is the season for making lantern slides, I will give you another process which I think will be of service. It is one practiced by Mons. J. H. Martyn, of St. Bees, whose elegant transparencies are suited for any purpose for which a transparency might be required. The transparencies produced by the albumen process are printed out, not developed, on a film of albuminate of silver, without the presence of any haloid salts, and fixed in the usual way.

Here are the details in the brief and simple terms of Mr. Martyn. Take

Albumen, . . . 1 ounce. Water, 1 drachm.

Beat up well, allow to settle, and filter the mixture. Coat a well-cleaned piece of patent plate-glass, and allow to dry spontaneously. Then sensitize in a fifty-grain ammonio-nitrate of silver bath, to which a little alcohol has been added. Allow the plate to dry spontaneously, and print deep. A very fine result may be produced without the ammonio-nitrate bath, but the silver bath must, in that case, be slightly alkaline. A fifty-grain silver bath, with two or three drops of ammonia to each ounce, will give a fine transparency, but the film will not be quite so sensitive as when the ammonio-nitrate bath is used.

The hyposulphite bath, for fixing, should be somewhat weak.

Until I visited this model and interesting establishment I never had any conception of the quantity of lantern slides that are sold. I found them going to all parts of the known world from here, and quite as many going to India and other heathen lands, as go to the United States. I became convinced that the magic lantern was not doing half its mission in our country as an educational and entertaining power, and I resolved to correct it if I could. Everybody surely knows what a magic lantern is, yet everybody does not know what pleasure and instruction it can give, but everybody must. In Mr. Levy's collection there are many thousands of subjects, and many hun-

dreds more of American subjects are being added this season. No one in the world attempts to compete with him in quality, and it is safe to say, he makes two-thirds of the photographic lantern slides that are made. His transparencies for the stereoscope are also the most exquisite things photography has ever produced. They have gone out of date in this country, and the magic lantern will still further displace them, but there will always be some sale for them. Every day, for ten days or more, I was in this interesting establishment, now selecting slides to illustrate my whole tour -and I could do it here-and now into the various departments witnessing the production of the splendid pictures I have described. Of such pleasant work I never tired,-and who could tire when in addition to all this the kindly attentions of Mons. and Madame Levy were added to the happiness of the occasion.

Did I go to see Mons. Adam Salomon? Ah yes! What would a visit to Paris be without a day with him? As his studio and his method of working have already been described herein, and likewise an example of his work published, I will not go into details concerning them. I found all in the old master that I had expected to find. A little older and grayer than I had anticipated, but of that I dare not complain. He was busy with a sitter when I called, and pending his appearance I had much to entertain me with the exquisite examples of photography in his receptionroom, and with the works of his mind and hands, as a sculptor, for it must be remembered that M. Salomon is a sculptor and not a photographer by first profession. Among his photographic specimens I found several that were familiar to me, the same that made us all sick at heart a few years ago, and many new ones. I found that the great master had not improved much. Ah me! He could not. His results were so far ahead that he could afford to stand still a few years. What he will do when we catch up to him I know not. But that there are many at home and abroad close upon him, even he will not deny. He loves photography and desires its progress. Yet, with all his imitators, there is a stamp, an impress upon his work so distinctively M. Salomon himself, that no one can reach it; a quality unrivalled, unequalled by anything else. I have for years worshipped at his shrine, and now I am standing face to face with him, his hand in mine. "I need no introduction to you, Monsieur Wilson," he said; "I have your photograph and would know your face. Besides, here upon my table are always kept several copies of the Philadelphia Photographer, in which you have spoken many kind words for me and made my fame in America." With such a greeting I soon felt at home, and had a most enjoyable visit. During the day I was invited to sit for a picture. I assured Monsieur Salomon that I would destroy his instrument. He took the risk. His skylight is low, and in the shape of an L, and he moves his backgrounds and camera all about it to suit the light and the model. He is most exact and careful in the pose and arrangement of the figure, and in the composition of the lines, internal as well as external. Considerable time was expended upon my long, lank, awkward figure, before much of gracefulness would present itself. Seeming to be satisfied, and giving me no head-rest, he proceeded to place his plate in the camera, when down came the whole thing upon the floor with a crash, the camera-stand having given way. laughter over, another stand was brought in, and the negative and several duplicates made. M. Salomon uses for his work the Hermagis Lens, made in Paris, about which more will be said when we visit the factory of M. Hermagis. I saw nothing peculiar in the method of working practiced by M. Salomon. His success is due, 1, to M. Salomon himself, and 2, to the practice, rigidly, of what has been published over and over. M. Salomon's negatives are a mystery. They are thin and flat, and very often dirty, but from them he produces the richest tones that ever were produced, and I conclude that only with him as an ingredient in all the formulæ can they be produced.

I agree with my friend Luckhardt, of Vienna, that M. Adam Salomon still stands at the head of his profession in Paris. His portraits are still unapproached in the way of artistic lighting and posing. The very difficult art of placing a sitter's hands, for instance, has in the Salomon portraits been so thoroughly mastered, done in such original and artistic ways, that it is a pleasure to see them. They stand out from the picture in distinct individuality, and form a marked object of study. Some of his prints are in carbon, and the backgrounds were shaded away, so that the light portions should be obliterated by an operation subsequent to the printing. When the image has been carefully covered, the background may be worked upon with a fine, dry, yellow sand to any extent that may be advisable, and which shades it softly away without any hard lines.

The print-washing apparatus of M. Adam Salomon is also a noteworthy thing. It consists of a deep box, the upper part of which is filled with polygonal rods hollowed at the tops. Between two of these a picture is hung, and the water moving along the grooves flows over the pictures back and front, draining off at the bottom. By this means each is treated individually, and in a thorough manner.

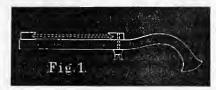
Just previous to my visit, M. Salomon introduced a new style of portrait of ladies taken in white dresses with an absolutely white background, so that the face and dress appear darker than the ground, the folds and laces standing forth sharply. They are just the reverse of those in vogue in Vienna, where a very dark background is used to give the picture relief, and I do not fancy them as much as his dark backgrounds.

I also visited the studio, several times, of Mr. Ch. Reutlinger, but his studio has since been so faithfully described by our good friend, Mr. Lacan, that I will here only place on record my testimony as to the very kind reception I met by Mr. Reutlinger and his staff. His work is also peculiar to himself, and very excellent. He is working in a place much too cramped for his business, and could easily afford to raise his price and make less negatives. Soon, I hope, our magazine will present another specimen from his establishment.

As I went about, I picked up several little dodges, and I will add one or two here lest I forget them.

The first is an idea for a support for the

plate during development. The drawings give a lateral and a vertical view of the article, and a description is unnecessary, ex-



cept to say that it is made of wood, a slot being cut in the handle for the slide, which is fastened by a screw below, and the slide and the end cross-piece being provided with pins, as shown.



The glace or souvenir pictures were being introduced as a new thing, and some of them were very beautiful, Mr. Reutlinger's were especially fine, having a very pretty stippled background. It is printed light or dark, and enhances the value of the enamelled cameo to a wonderful degree. There is no secret in the preparation of these brilliant pictures; simply one operator was kept solely for the work, and he, naturally enough, had become very skilled in their preparation after a time.

There are two printings. First of all the portrait is printed in an oval, or oblong, as the case may be, and then the print is covered up and the stippled ground produced. I was not informed what kind of medium is employed as a negative for printing in the groundwork, but doubtless a sheet of thin paper, stippled by hand, and then waxed to render it transparent, would answer the purpose very well. A medium thus produced would, of course, serve over and over again. The ground is printed in, either dark or light, as will best match the portrait, and then the enamelling of the print is proceeded with. A sheet of glass, after being thoroughly well cleaned, is coated with collodion and allowed to set. A warm solution of gelatin is then prepared, and into this the print is immersed bodily, care

being taken, of course, to prevent the formation of air-bubbles. The picture is laid face downwards upon the collodionized plate, and pressed firmly with the fingers, air-bubbles still being looked after. The mount itself may then be attached to the picture with gelatin, and when the whole is dry it is removed from the glass. The mounted portrait is then moistened and pressed up, to give it the effect of a cameo, and the operation is finished. There is not much novelty in the business, but the effect, when the operations are carefully carried out, is exceedingly good, and such pictures are great favorites with M. Reutlinger's customers.

Paris seems to be alive with photographers, and there are all classes and grades of them. But I must not tell you all about it now, or there will be nothing for next month.

THE GRAPHITE PROCESS.

From one of our subscribers in St. Petersburg, Russia, we have received the following instructive letter on the above process, which we take pleasure in laying before our readers, believing it may help those who are working in this direction.

The writer's name we withhold by his request.

 $\ensuremath{^{\prime\prime}}\xspace St.$ Petersburg, July 11th, 1874.

"SIR: After having received so much benefit from your esteemed journal, I feel duty bound, as it were, to send my mite for the benefit of others. I do not wish my name to be in print, if you should deem the following fit for the *Philadelphia Photographer*.

A FEW PRACTICAL HINTS ON REPRODUCING NEGATIVES BY THE DUSTING PROCESS.

"The Preparation of the Plate for the Reception of the Sensitized Coating.—If the plates are not clean it will be found difficult to get the solution to flow over them; breathing upon them only partly remedies this evil, but if they are placed for a few hours in a weak solution of nitric acid, afterwards rinsed under the tap, and polished with ordinary whiting, the solution will cover them as easily as collodion-coat-

ing the plate. This is done in the same way as for collodion, with the following solution:

 Dextrin,
 2 parts.

 Gum Solution,
 6 parts.

 Grape-sugar,
 5 parts.

 Glycerin,
 3 parts.

 Water,
 80 parts.

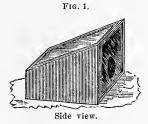
"Add to this a warm solution of

Bichromate of Potash, . 2 parts. Water, 20 parts.

"The reason for employing this mixture is, that it does not require that the quantities of glycerin and sugar be altered excepting when a great change takes place in the weather, the necessity of which will be seen at a glance as soon as one plate is developed; in case of an excess of hygroscopic ingredients, the plate will fog; if on the contrary, it will appear as if overexposed, and the black-lead will not adhere to the film; but should the glycerin be only a little in excess, the high-lights or opaque parts on the negative will be full of minute transparent spots. After coating, allow the excess to run off into a bottle, with a filter in it, and dry it in a drying-box, over a Bunsen burner, or a spirit-lamp will do if the others are not to be had. When the box is used, do not leave the plates in too long or they will be too dry. When the desiccation is complete, lay the plate carefully on the negative (which should also be slightly warmed), cover with a sheet of dark-red blotting-paper, and expose from ten minutes to half an hour, but not in the sun unless the negative is from an engraving, and then a beautiful dense negative can be obtained by exposing for three minutes in full sunlight, which will give a very fine transparent negative. The plate must now be developed as follows:

"Have a box, made as in the accompanying design, placed on a bench, in front of the yellow glazed window in the darkroom; open the lid, lay the plate (which must be about the same temperature as the room where the development is performed) in the porcelain dish, dust with the best levigated black-lead (which should be kept in a wide-mouthed bottle, with a double thickness of muslin stretched tightly over

it), by striking with the palm of the hand on the bottom of the bottle; shut down the lid, thrust the hands into the two holes, and with a soft camel's-hair brush, brush the surface evenly (not hard), by giving the



brush a circular motion; as soon as the negative has assumed the proper density, carefully dust off the superfluous plumbago, take it out and pour a two per cent. normal collodion containing a few drops of castor oil upon it, then lay it in a horizontal position to dry; afterwards place in a dish of warm water, when the film will leave the glass, and must be caught upon the other side should a noninverted negative be required, but if a reversed one is desired, then it is only necessary that the bichromate be washed out of the film with cold water; this being done, a weak stream of water must now be brought to play upon it, so as to remove any air-bubbles that may be between the film and glass, then pour gum-water over it, and when dry, back it.

"Remarks.—If dextrin is used alone, it is very difficult to filter properly, as it gives small lumps in the film which cause black spots in the negative; it is also liable to smear when breathed upon, whereas gum alone gives good results even in underexposed plates, but then it has this disadvantage: after it is put into water it refuses to detach itself from the glass, so that it can only be used for reversed negatives. That is the reason why the above solution will be found best, as in case parts of the original are too weak, they can be made deeper by breathing upon them slightly, and dusting a little more black-lead over them.

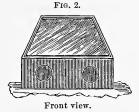
"If the plates are developed in a damp cellar, the glycerin will not be found necessary. The above process is very useful indeed, as the so-called mezzotint process can be done by it from negatives already made, thus: "Make two negatives as above, but instead of reversing the film on the same glass, make it on a plate coated with Hance's Substitute, or a sheet of ground-glass, catching the film on the plain side; when dry, fasten the two together, with the ground-glass in the middle, and print in the ordinary way.

"This process will also be found invaluable for enlargement in the solar camera. A plate coated, dried, and exposed in the camera from thirty seconds to two minutes after development with black-lead will be found to give negatives from which delicate prints may be obtained upon albumen paper. If an enlarged positive is necessary to make transparent slides from them, chloride of iron and tartaric acid must be used for sensitizing with instead of the bichromate of potash.*

"As all the subscribers to your journal may not have had the opportunity to see the formulæ of others, I append the following, by Mr. Jacoby, in the *Photographisches Correspondenz*:

"By W. B. Woodbury, in the Photographic News:

Gum (solution or powder), 3.75 grammes. Grape-sugar, 3 "
Glycerin, 10 "
Bichromate of Potash, . 1.875 "
Water, 60 "



"The above box will be found useful for

* For full particulars of the sensitive properties of these salts combined, see Professor Vogel's Handbook of Photography (new edition), which is already published in German, and a translation of which will no doubt shortly appear in America. [It will.—Ed. P. P.]

preventing the black-lead from entering the mouth while developing; it is made of sheet-iron or tin, the back and lid to have glass fitted in them, and inside lay a porcelain dish that will just fit the bottom, or a tray made of enamelled cardboard, with the edges turned up about $1\frac{1}{2}$ inches all round; the front-piece must have two holes cut in it large enough to admit the arms. If necessary, a tray of ice can be put inside, so as to facilitate the developing, if the atmosphere is too dry.

"P. S.—If old plates are used, I would advise that they be smeared with oxgall previous to coating with the solution, as the films will leave the glass more readily after they are placed in the water; for new plates this is not necessary.

"I will answer any other questions, if required, through the *Philadelphia Photographer*.—H."

Filterings from the Fraternity.

Under this head we propose to give from month to month, as long as the matter may prove interesting, such items of formulæ and processes as our correspondents may favor us with—some of the best and most practical information that can be collected from prominent workers throughout the country, especially those who were at the Chicago Convention, the methods of their everyday work, being, as it were, the filterings from their thoughts, which a large correspondence with them brings us.

We are sure the material collected here will be found reliable and beneficial to all who study and practice it.

As we trust all may be benefited we invite all to contribute anything new or novel, or the details of their regular methods of working, their whole formulæ or any part thereof. All will be interesting, and as no two men pursuing a certain subject can hardly come together without learning something from each other, so we believe each may find something here that will be new and useful, something which, when added to his own present stock of knowledge, will improve his work or his way of doing it.

In order to set the ball in motion, we give below notes from letters received from a few of our leading photographers, to whom we return our thanks. Many more are in hand.

What follows first, we doubt not, will command for the author the hearty thanks of many a hard worker who has perspired over that unreliable agent known as collodio-chloride or

COLLODION FOR PORCELAIN PICTURES. BY G. CRAMER,

Cramer, Gross & Co., St. Louis.

"The beautiful softness and richness of a good porcelain picture, which cannot be obtained in any other print, is so charming and so much admired by the public, that it is only surprising that porcelain pictures are not made more frequently.

"The public taste is in favor of them, so it seems to be on the photographer's side to introduce a greater demand for them than heretofore.

"The reason why they are not made more frequently seems to be in the trouble which most operators have experienced in the production of good, sharp, and brilliant prints on porcelain. They are less liable to fade than prints on albumen paper, and if glass of ordinary good quality is used, both for negative and print, they can be obtained sharp and distinct. But the principal reason for failure seems to lay in the instability of the chlor-silver collodion, which may work very fine when newly made, but after a short time will generally work flat and unsatisfactorily, because the chloride of silver is precipitated and falls to the bottom of the bottle instead of being kept in solution as it should be. As soon as the silver is precipitated the collodion is worthless for printing, and a new lot has to be made, causing considerable trouble and annoyance, too much perhaps for making only one picture at a time.

"It has been my aim to overcome this trouble, and I have succeeded perfectly in making two different collodions, one containing the silver, and the other the chloride, so that at a moment's notice a good working collodion can be obtained by mixing equal quantities from both bottles.

"Here are my formulæ, which I have used to my best satisfaction for the last two years.

Collodion No. 1.

"First dissolve 60 grains of negative guncotton in 2 ounces of alcohol and 3 ounces of ether.

"Take 120 grains of nitrate of silver, powder it very finely, put this in a small bottle with 3 ounces of alcohol, and heat by setting the bottle in boiling hot water until all the silver is dissolved in the alcohol. As soon as this is obtained, pour the silver solution, while still hot, in the collodion, stirring up all the time to secure a perfect solu-

Collodion No. 2

"Thirty-two grains of chloride of strontium, and 24 grains of citric acid, are reduced to a fine powder and dissolved in 4 ounces of alcohol; add 4 ounces of ether and 60 grains of negative gun-cotton.

"These two collodions will keep for any length of time, and when mixed in equal proportions will produce brilliant prints.

"To obtain fine porcelain prints proceed as follows:

"1st. Coat the porcelain plate with albumen from fresh eggs and water, equal quantities.

"2d. After the plate has dried (without heat) warm it and let cool again.

"3d. Coat with the collodion (mixture of Nos. 1 and 2), in a moderately dark room, and dry the plate perfectly over a

"4th. For printing, lay the negative on the prepared porcelain, being sure to have it in the right place; protect the back of the porcelain with yellow paper, and put plenty of patent clothes-pins all around the edges to secure a good contact. This is better than any porcelain printing-frame.

"5th. In printing, put out in the light, at the same time, a silvered piece of albumen paper under a negative of the same intensity as that for the porcelain, and as soon as this paper print is dark enough, the porcelain picture is dark enough too. The negative should never be moved to inspect the proceeding of printing, which moving is unnecessary this way.

water, next in water containing a very little salt.

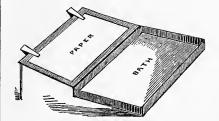
"7th. Tone in water 8 ounces, 1 drachm of gold solution (1 grain per ounce strong), made neutral by adding a drop of sal soda solution.

"8th. After toning and washing, fix in hyposulphite of soda I ounce, and water 10 to 12 ounces."

Mr. M. M. Griswold, of Boston, gives the following

NEW METHOD FOR SILVERING PAPER.

"The bath I use is from 30 to 40 grains strong, containing a strong dose of nitrate of ammonium, and is alkaline from the same. The sheets are immersed, face up, one at a time until from ten to twenty are covered by the solution. The dish being rocked back and forth to loosen bubbles and make sure that each sheet is thoroughly wet, I then turn the whole mass over, which brings the first ones immersed to the top, face down. The next operation is as follows: Have a sheet of double thick glass, a little larger than the paper (I am speaking of whole sheets of paper), which place at a proper inclination to drain the surplus solution back into the bath. Float the paper to one side of the bath to get them even, then take them all out together and lay them face down on the inclined sheet of glass, near enough to the top to be held with



two wooden clips, one at each end; the drainage is now all back into the bath. To hasten this operation I use a squeezer, a strip of

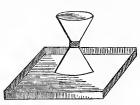


rubber set into a stick a foot or more long, which is applied lengthways at the top of the paper and pressed forwards towards

the bottom, forcing the solution out of the "6th. After printing, wash first in plain | paper into the bath. If desired to secure

the largest amount of silver absorbed by the paper, press the solution from the top sheet, then the next, and so on, or the whole can be squeezed at once. What I claim for paper so prepared is greater depth and transparency to the picture, and perfect uniformity in the paper, with facility and equable toning. The paper prints clear through, giving great body to the darker parts. On the score of economy of silver I think the loss less than when paper is hung up to drain (on the floor) in the usual way. The saving of time in silvering by this method would largely overbalance the waste of silver by extra absorption, if there be any.

"Here is another dodge I have lately suggested. You know that I have gone back to first principles and use a flat dish for negatives. My dodge is a funnel for filtering into flat dishes. I call it the



'Hour-Glass Funnel.' When the cotton or sponge gets dirty, turn it over and run water through the other way; it saves bothering with bottles, etc.''

Mr. O. F. Weaver, of Chicago, gives the following receipt for

RETOUCHING VARNISH.

"Warm the negative slightly and dry by artificial heat. I use from No. 2 H to 6 H pencils, without rubbing up the surface.

"Will try and offer something for the next issue."

St. Louis Formulæ.

Mr. R. Benecke, of St. Louis, one of the best and most popular landscape and portrait photographers in the West, communicates his process as follows: "My formulæ are the most simple ones you can find.

Collodion.

"This collodion keeps well, and is good for view and portrait work. If it should become too pale by long keeping, which it will do when the gun-cotton has been washed in diluted aqua ammonia, tint it with a solution of iodine in alcohol.

Developer.

Saturated Sol. of Iron, . 1 ounce.
Acetic Acid, . . 1 "
Water, . . . 12 ounces.

"For light drapery or children's pictures, use it a little stronger.

"My bath is made in the following manner:

Water, 8 ounces.
Glycerin (good quality), . 4 ounces.
Silver. 1 onnce.

"Sun it for a few days. Should there be any acid in the silver, put a drop or two of aqua ammonia into it. Then boil it for a few minutes, and give it, after cooling and filtering, a liberal dose of nitric acid.

"Plates prepared in this bath will allow you to go miles and come back with a wet plate.

"I silver my paper on ammonio-nitrate of silver; very seldom I fume it. It is made thus:

Silver, . . . 1 ounce. Water, . . . 8 ounces.

"Take five ounces of this, add aqua ammonia until clear again, then add the remaining three ounces. Take half or a little more of this turbid solution, make it decidedly acid with nitric acid, and add the balance. Filter, and it is ready for use. When paper and silver are in good condition, any toning bath will do."

From Mr. C. A. ZIMMERMAN, St. Paul,

Minn., we have the following collodion formulæ.

Good keeping Landscape Collodion for Cool Weather Use.

Ether and Alcohol, . . . equal parts.

Iodide of Cadmium per ounce
of Collodion, . . . 6 grains.

Bromide of Cadmium per ounce
of Collodion, . . . 3 grains.

Cotton, . . from 5 to 8 grains per ounce
of Collodion.

"This will keep any length of time, and will, with proper handling, give fine, soft, and brilliant results. For this collodion, a double solution of iron developer is the best.

Landscape Collodion for Ordinary Use.

Ether and Alcohol, equal parts. Iodide of Ammonium per ounce of Collodion, $2\frac{1}{2}$ grains. Iodide of Cadmium per ounce of Collodion, $2\frac{1}{4}$ " Bromide of Cadmium per ounce of Collodion, $2\frac{1}{4}$ " Cotton ad libitum.

"It will keep moderately well, and give very brilliant results.

Portrait or Landscape Collodion for Immediate Use.

"Will not keep as long as that made by the above two formulæ.

Ether and Alcohol (equal parts), . 1 ounce. Iodide of Ammonium, . . . 5 grains. Bromide of Ammonium or Cadmium, $2\frac{1}{2}$ "Cotton as desired.

"More another time."

Mr. E. D. Ormsby, of Chicago, follows with some excellent suggestions on managing

THE DEVELOPMENT.

"Many photographers devote too little attention to the developer. They have a certain formula for mixing it, and they always use it the same strength, be the subject light or dark, well timed under the light, or undertimed.

"We have a great power in the developer. As much depends on skilful development to obtain fine results in the negative, as skilful lighting, in fact, more, for by skilful manipulation a negative with faulty lighting can be made to produce good results.

As an example, take children's pictures. Where you are obliged to light strong, and then can get often only two or three seconds' exposure, by using your ordinary strength of developer, and keeping your plate in motion during the development, you are bound to get harsh results. Increase the strength of your developer one-half, and hold your plate still during development, and note the difference in the result with the same lighting and exposure. For brunettes, light soft, time well, and use a strong developer, and don't rock the plate during development. For blondes, use a little stronger contrast in lighting, time well, and use a weaker developer, and keep the plate moving gently during development. For white draperies, use a soft light, long exposure, and a weak developer. The advantage to be derived by varying the strength of the developer for different subjects, and different conditions under which we are forced to work, is evident to all. But some will say, it is too much trouble to keep several different strengths of developer on hand. I say not at all. Make a stock solution of iron-11 ounces of iron to 20 ounces of water; acetic acid, 21 ounces. Keep a bottle handy containing water, 20 ounces; acetic acid, 21 ounces; and use it to weaken your developer as you use it. By this method you can change the strength for each sitting if you wish."

Mr. W. L. Shoemaker, Philada., sends these useful suggestions in reference to

SALTING PLAIN PAPER.

"To those preferring to salt plain paper for their own use, the following hints may be of service.

"The kind of salt employed has an effect upon the tint of the print; the weight of salt employed has the same effect upon the tint; salting with a bath of under strength is shown by the print having a bluish, weak look, and an entire absence of purplish contrasts in the tints of the face.

"Oversalting produces paper that prints slow, blacks feeble and reddish; tone apt to be measly, and drying flat. Plain Saxepaper is better floated than immersed, and should be laid on until the paper is perfectly flat, then lifted as carefully as in silvering.

"The quantity of gelatin used in connection with the salting is generally different with every printer, but for medium Saxe paper, I would recommend at this season of the year about one box of Cox's gelatin to four gallons of salt solution. In winter this can be nearly doubled.

"This same solution will be strong enough for the roll Saxe at this season. Salting with chloride of ammonium alone prints rather brownish, and the paper does not keep so well, or print as quick, as if used in equal proportion with common salt.

"So the résumé would be,

Chloride of Ammonium. . 1½ grains.

Common Salt. . . . 1½ "

Water, 1 ounce

Gelatin, 30 grs. to the quart for summer,

double or nearly so in winter.

"Saxe paper, so prepared, should be floated and fumed the same as albumen paper."

From Mr. E. BIERSTADT, of New York, we have the following interesting article on

THE USE OF GRAPHITE IN THE NEGATIVE PROCESS.

"While the subject of 'Graphite Negatives' is yet fresh, it may be well to name a few other uses that are not generally known for graphite in photography.

"1st. Ordinary negatives can be strengthened with it in this manner: After developing and fixing, wash well, and drain the plate, and pour on the dextrin solution* at the upper corner, so that the water still on the plate may be driven off before the stream of dextrin; drain and pour over once more, and this time do not drain off too close, but as soon as the stream becomes broken into drops, bring the negative back to a horizontal position, and dry over a spirit-lamp; then with the negative laid face down on a dark cloth, expose the back side to strong light nearly one-half longer than would be required for making a negative; then the graphite must be applied as usual with a camel's-hair brush until the desired strength is attained.

"2d. A new negative can be made on the back of an old one. It will be remembered that a patent was granted some time ago for

coating both sides of a glass plate with collodion, and developing both so as to make one diffused image on the back of the one in focus, so that prints might be made with all the soft effect of a retouched negative. With graphite this can be done after the sharp negative is made, or it can be made on the back of any old negative. Clean the back, and coat with the sensitive compound as for a negative, dry by heat, and expose the negative side to light, and apply graphite as usual.

"Since my first note referring to this subject, the American Graphite Company has merged into the Dixon Crucible Company, who have the fine graphite at 24 Cliff Street, New York."

Messrs. Montfort & Hill, Burlington, Iowa, give some good practical hints, which will doubtless be new to many.

SOMETHING NEW ABOUT TONING.

"Take any formulæ, or the following: Two ounces of bicarbonate of soda, one ounce of acetate of soda and a few grains of citric acid. Neutralize the toning bath into this, and place it in the sunlight for a few hours. It will turn dark, and a greasy scum will appear on the surface. It is then ready to use without filtering. No toning bath yet published will give better results. If you like rich warm tones, try it.

"Here is a 'dodge.' Every operator is supposed to possess a set of one-ninth size gem tubes. Take the front lens of two of them, and fit them in a board three inches apart, so that you can slip it in your camera box, then fasten a paper cap, with a small aperture in front, over each lens, and you have a cheap stereoscopic outfit, by which you can take as good a negative as with the most expensive view tubes. We send a sample picture to the editor made in this way, to verify our statement.

"We publish this for the benefit of photographers who would like to make work of this kind, and are not willing to purchase extra instruments."

Mr. J. W. WYKES touches a subject that has been much neglected, that of

MAKING SOLAR NEGATIVES.

His formulæ may help many others. He says:

"I have tried every other method and

^{*} See August number, p. 246.

always go back to this with pleasure. If it will help some one who is making those hard negatives, so annoying to solar printers, to better results I shall be repaid.

Bath.

"Forty grains of silver to one ounce of water; one-half drachm of nitric acid to sixteen ounces of solution. Use collodion of a deep color with about five grains of cotton to the ounce.

Developer.

No Sooner Said than Done.

"If those parties who have occasion to make ferrotypes are troubled with the glass



adhering to the plate, and stains caused by the pressure forcing the surplus bath solution up and over the sensitized face, will cut the glass

used in the form of the above engraving, they will be hugely tickled at the results."

How it is Done in Boston

Mr. A. N. HARDY, of Boston, in communicating his formulæ as given by his operator, Mr. Ritz, says:

"I do not think of any wrinkles or dodges that we have, except such as have already been published. If we have attained to any success in our beautiful art, I think it has been by careful thinking and skilful working.

"Our Mr. Ritz works the following:

Collodion.

Ether and Alcohol, . . equal parts.
Iodide of Ammonium, . . . 4 grains.
Iodide of Cadmium, . . . ½ grain.
Bromide of Potassium, . . . 2½ grains.
French Gun-cotton, . . 5 grains.

Developer.

Protosulphate of Iron, . 1 ounce.
Acetic Acid (Martin's), . 1 ounce.
Water, . . . 16 ounces.

"To be varied according to light and subject.

Negative Bath.

Nitrate of Silver, . . . 35 grains. Water, 1 ounce.

"Acidulate with nitric acid; the water

need not be distilled. Leave the solution in sunlight till it is perfectly clear, then filter. Do not add the acid till after it has been filtered.

"The pictures on exhibition at Chicago were made with the Voigtlander & Son instruments, and I would gladly recommend them to the fraternity."

Mr. H. C. WILT sends the following wrinkles.

How I PREPARE NEGATIVES FOR PRINTING.

"After retouching, I apply heat to the negative, face up; this melts the varnish and lets the pencilling sink or penetrate, and the varnish runs over the pencil-marks, and thus the prints are much softer than if the negative had not been warmed.

"A much softer print can be obtained by setting the intense side of the negative towards the light, and moving the negative while printing; if you turn the thin, or weak, or shadow side towards the light it will print quicker and coarser.

"When I am wanting to use an old negative or positive bath I add about from 1 to $1\frac{1}{2}$ drops glacial acetic acid to the ounce of solution; shake, and you will see some precipitate almost like cheese. Let it set over night, filter, when it is ready for use.

"I think we ought to have a sign or test, so that the members of the National Photographic Association could know each other in crowds, especially when on boats, or in cars. By this testing we could know and approach each other, and get desirable information, and travel with company that, without such sign, we would not have the knowledge of each other."

"THE BEST" LUBRICATOR.

Mr. B. F. Hall communicates something useful to those who burnish.

"Burnishers are an established fact; so also is the necessity for a 'lubricator' when it is desirable to burnish enamelled cards, or rather pictures mounted upon them. Your remarks in September number, on Dean's soap and alcohol, moves me to give you for publication the very best lubricator in use, and I have used them all, Dean's patent mixture included. I have burnished.

photographs mounted upon all kinds and qualities of enamelled mounts, fine-tinted, gilt and tinted border, etc., and have never known a failure when using the following:

"When pictures are all ready to burnish, rub over them the following mixture:

"White Wax, 15 grains; Ether, ½ ounce, or enough to soften the wax; then add 3 ounces of Alcohol. Apply with a rag or sponge. No care is necessary."

CLEVELAND FORMULA.

MR. E. DECKER, of Cleveland, whose splendid pictures excited much envy at the Chicago Exhibition, very generously communicates his whole formulæ, which will be found instructive. He says:

"My formulæ are at any one's service, but you will find they are as simple as any other. We have been using the same for the past five or six years, with the usual changes, of course, for weather and temperature.

"For the past two years my operator, Mr. White, has had almost exclusive charge of my dark-room, myself giving attention to making the sittings. I always give full time, let the light be what it may. If the light is very weak, and the sitter cannot keep still, have them try again. Instantaneous or very short time may be pleasant for both sitter and photographer, but it 'don't pay' except in cases of children, as it is necessary to use too much light for best effects.

"I am not opposed to large lights; on the contrary, I like a large light, but want plenty of screens to govern or control it.

Negative Bath.

Nitrate of Silver, . . . 40 grains. Water, 1 ounce.

"Slightly acid with C. P. nitric acid.

"When made new ½ grain iodide of potassium to the ounce of nitrate of silver.

"I will say here, however, that my largest bath solution was originally made up eight or ten years ago, and I have made no new one since, during which time it has passed through one removal and one fire. We invariably keep on hand a double stock of all bath solutions.

Collodion.

Alcohol and Ether, . equal parts.

Iodide of Ammonium, . 4 grains to ounce.

Bromide of Cadmium, . 2½ " "
Anthony's Neg. Cotton, 3 " "
Papyroxylin, . . . 2 " "

Developer.

"M. Carey Lea's Sugar Developer; using much less acetic acid, however, than he recommends.

Redeveloping.

Pyrogallic Acid, . . . 1½ grains to ounce.
Citric Acid, . . . 1 " "
Nitrate of Silver, . . 20 " "

"Or Developing Solution and Nitrate of Silver as above.

Printing Bath.

"Nitrate of Silver, 45 grains to the ounce of Water, made as follows:

"Dissolve the silver in half the water. Ammoniate two-thirds or three-quarters of the solution, and add the balance. Add to three-quarters of the above C. P. nitric acid until slightly acid, and mix water to dilute to the right strength. I don't fume.

Toning.

"Chloride of gold, slightly alkaline with bicarbonate of soda. Do not throw away, but use every day, adding each day gold and soda in proportion to the number of prints to be toned. Tone slow.

"I had almost forgotten to mention the best and most necessary part of all the formulæ, viz., a *Dallmeyer Lens*. To all of which add care, cleanliness, and thought; also patience, perseverance, and sweet oil; the last three to be used more particularly in dealing with customers."

RETOUCHING NEGATIVES.

Mr. BILDT gives the following composition:

No. 1.

Gum Arabic, . . . 1 part.
Water, 7 parts.

No. 2.

Bichromate of Potash, . . 3 parts. Water, 7 parts.

"Add to the solution of gum as much of the bichromatized solution as will give it the tint of Madeira wine; it is then ready for use. Should be kept in the dark. "The negative fixed, washed, and dried in the ordinary manner, is covered with this bichromatized gum, dried in the dark, then finally exposed for half an hour. The negative is thus covered with an insoluble varnish, mat and very hard, on which, with a Faber pencil, No. 3 or 4, every kind of retouching may be made with the same facility as on paper. This bichromatized coating does not injure the negative, and may be used without fear as any other negative varnish."

Class in Landscape Photography.

To photograph a lake or river, it is not sufficient that a view be taken simply showing the expanse of water, as any one would readily see that this would be very tame and uninteresting. Like the mountain and valley, which are made to give character and support to each other, so land and water must be introduced to give form and distinction to a lake or river. Water is much the same everywhere, under similar conditions, but the solid earth is full of variety. Localities are recognized by the characteristics of the surrounding landscape, and the sailor knows what port he is nearing by the distant mountains that seem to rise out of the ocean, and as he approaches, his judgment is confirmed by the general "lay of the land."

So in photographing a sheet of water it is necessary that a portion of the landscape, the hills that rise around it, or some conspicuous landmark, which will include a portion, at least, of the form and outline of the lake or river, should be introduced.

When the view includes a large breadth of water the effect is greatly heightened by the introduction of a boat, a log, rock or island. But nearly all accessories may be dispensed with, and an almost enchanting effect produced by taking advantage of the sun's being obscured by a cloud, and catching the reflection on the water, which forms a broad avenue of light, and stretches far over the dancing wavelets as if to some fairy grotto in the dazzling distance. A view of this kind must necessarily be instantaneous, and then probably with a rather small stop to the instrument. These are usually

called moonlight views, and when well executed the illusion is perfect.

A river view will usually include both its banks, unless it be very wide. And when its winding course can be traced by its mirrorlike surface through a rolling and varied landscape, the effect is very fine.

Waterfalls are usually attractive subjects, and many can be found away from Niagara, or the Bridal Veil of the Yosemite. Such a view should be chosen as will give the comparative height, and show the form, as far as can be, of the cataract. The view should not be too near, as a proper proportion of the surrounding rocks or foliage, as well as of the foreground, is usually necessary to produce the best effect in the principal subject.

When it is necessary to illustrate the magnitude of any subject there is no better standard than the human figure. By this the size of any object is comprehended at once, and it may rise into grandeur by its vast proportions, or sink into insignificance simply by comparison with this never-failing test. But, in introducing a figure for this purpose, give it something to do or be interested in. Never suffer any person to stand and gaze at the instrument. If some boorish individual persists in intruding himself upon your view, make a blank exposure on him; he will suppose you have taken his picture, and will be likely to change his position. When he has gone or thinks you have done with your view, then quietly make an exposure, with a figure or two of your own choosing introduced as you may direct. Let a person you may place in the picture be looking anywhere but at the instrument; nothing has a better effect than to see him or them contemplating the principal subject. It has the effect of leading the attention of the beholder more directly to it, and excites an interest that otherwise would hardly be felt.

Bridges of almost any size or style of construction are usually good subjects. The best effect is always produced by getting a perspective view, such as may be had from the bank of the river or stream, and at such distance from the bridge as will best give its form and situation.

There is no subject, probably, more fasci-

nating to the lover of the picturesque than ruins of every description. These may often be found and introduced with good effect in connection with other scenery, but where the ruin possesses interest in itself, it, of course, forms a subject which may be treated independently of any surroundings, except as such surroundings may serve as accessories. In this country, however, this class of subjects, possessing general interest, is scarce. Our people take pride, not in the ruins of their former greatness and glory, the remains of magnificent temples and fallen empires, but in the living, thriving perfection, the unequalled prosperity and greatness of their country's glorious present, and aside from the temporary ruins of some of our burned cities we have nothing in this country that is at all worthy of special notice.

The last to be enumerated on the list is, to many, the most fascinating of all the subjects of outdoor photography. Instantaneous marine views, when well executed, possess a charm of real moving, active life, that is found nowhere else within the scope of photography.

To succeed well with this class of work requires apparatus and chemicals especially adapted to it; though, as far as the chemicals are concerned, it is only necessary that they should be in good working condition for ordinary work.

Usually a portrait lens is used for instantaneous views, but some of the large aperture view lenses work sufficiently quick. An instantaneous shutter is quite a necessity in making these views, and is the only means by which the exposure can be made short enough. There is always the latitude, however, in case of a very brilliant light, that may be taken advantage of by using the diaphragm, and thus bring the light and time of exposure under control.

With instantaneous marines, where it is desirable to introduce shipping or craft of any sort, a position should be chosen, the instrument placed, and focussed, and particular notice taken of the points included in the view. If a vessel is seen approaching, prepare a plate, and when she sails between the points you have selected, so as to be in proper position in the picture, then make the exposure. Never attempt to go

after your subject or to make a focus on a moving vessel, for she will continue to sail on, and possibly be out of your view before you are ready to take the picture. There would be exceptions to this in the case of a vessel sailing directly to or from you.

In all this work success depends very much upon keeping cool, and doing all without flurry or excitement.

Beginners are very apt to get nervous in their anxiety for success, and in this condition are liable to make mistakes and defeat their own efforts.

GERMAN CORRESPONDENCE.

Landscape Photography—The Effect of Perspective.

I AM out of town, at a watering-place, in order to wash off for once the dust of the city in the briny waves of the Baltic. It was my intention to do nothing, absolutely nothing, but I could not resist the temptation to take along some photographic apparatus. I believe photographers are like actors, after one has worn out a pair of shoes on the stage be cannot leave it, and after a photographer has used up a pound of nitrate of silver he is wedded to the dark-chamber for life. The amateur is almost in a still worse condition. Many a pretty study excites me to work, for the coast here is highly romantic. Mighty dark cliffs, similar to the Shakspeare Cliff at Dover, rise here out of the water, the summits crowned with the primeval forest of the finest beech and oak. Deep gorges intersect the rocks, mountain torrents rush down towards the sea, and immense boulders cover the beach. Further inland you meet with curiously formed giant tombs, with numerous remnants of flint implements, and weapons peculiarly formed, fortifications, and heathen altars, all relics of a people that has long ago passed away, and of which we only know by legends. Unfortunately the intrusive present, in the shape of farmers' boys and servant girls, interferes with taking the picture of these remnants of the remote past, for these people believe that I am an itinerant photographer, and ask me regularly how much I charge for a half a dozen cards. Wind and weather also interfere quite frequently, but seldom the leaves are quiet,

and still more rarely am I favored by a ray of sunlight which brings light and shade into the landscape. Here is abundance of splendid material for such show pictures as have been made by Breese in England. I mean his splendid instantaneous photographs, where surging waves and overhanging clouds are illuminated by a sudden burst of sunshine, pictures that are made daily at the Falls of Niagara, but which succeed so rarely in the less favorable atmosphere of Germany. Unfortunately we do not meet with these pictures any longer in the shops, for Breese is reported dead, and his successor has not been found yet, although the beautiful transparencies were readily bought, in spite of their high price. It is, anyway, peculiar that the artistic landscape photographers do not succeed on the Continent. Such magnificent pictures as are made by Robinson & Cherrill we look for in vain in Germany, and it is significant enough that English photographers make our own a rather strong competition in the landscape line.

It seems that generally the photographer is satisfied with taking the view that most people call for, but he does not care how the illumination is, or if the light comes from the front, from behind, or sideways. The travelling photographer is satisfied to make in the shortest time as many pictures as possible, and to travel through the country as quick as possible. Under these circumstances, to wait for the finest effects of light and shade is out of the question.

This evil is mainly due to the public itself. It makes great pretensions when its own dear self is concerned. When a portrait is wanted, their vanity comes into play, but with landscapes the case is entirely different. If only the outlines of the favorite spot are recognized, the public is satisfied, and does not ask whether the plate is over or under exposed, whether it is spotted or streaked, in fact, it accepts the meanest kind of work, provided it is cheap, and the best photographer, who would like to make the best kind of work, finds to his regret how little even educated people know to value his talents. Such indolence cannot of course promote progress.

There are very clever landscape photog-

raphers, particularly in the Alps. I refer, for instance, to Baldi & Wurthole in Salzburg, Johannes in Portenkirchen, and Lotze in Bozen. In North Germany we had formerly artists of equal reputation, but it seems that they have lately turned their attention to other branches of photography. We must not forget that the Alps furnish the photographer with a much richer material than the flat plains of North Germany. In the Alps we can turn the camera in whatever direction we choose, and we will, almost in every instance, find a good subject. But it is different in a level country. Here it becomes difficult to fill out the picture. We find, for instance, a charming village surrounded by trees and woodland. We direct the camera towards it, and we get a picture. But how does it look? The village with the surrounding forest occupies a small strip in the centre of the pieture, above it there is a wide blank space representing the sky, and below a broad space of tedious foreground in the shape of a large stubble-field.

These drawbacks may be remedied by a lens with a long focus. Sky and foreground appear smaller, and the centre larger, but, unfortunately, the angle of view will decrease with a longer focus, and many a landscape which stretches over a considerable horizontal surface cannot be taken with a long-focussed lens. It becomes, therefore, necessary to stick to a short-focussed lens, and thus it happens that we see many a marine view in which the tedious sky and the equally tedious foreground drive the artistic viewer to desperation. The painter easily circumvents these difficulties. He fills the sky with handsome clouds, lets the sun burst through them and throw wonderful reflexes on water and foreground, and brings in this manner harmony and poetry into a landscape where photographers despair on account of the monotony of the subject.

Yes, the painters nowadays give a preference to the level country, where sky and foreground leave a clear field for the display of their fancies, while in mountainous regions like the Alps, the mountains themselves fill the picture from bottom to top.

In view of these miseries of the landscape

photographer, it is really enjoyable to record some new conquest in the realm of geographical photography. These are the pictures from the Desert expedition by Gerhard Rolf, taken by Ph. Remelé. Rolf's expedition was organized by the Viceroy of Egypt, and entered the sandy waste of the Desert for the parpose of tracing the roads of the caravans, the oases, the geological formations, etc. Zoologists, botanists, astronomers, and mineralogists accompanied the expedition. It is the first African one which was accompanied by a photographer.

The oases "Charzeh" and "Tarafre" were reached, and strange rocky landscapes, interesting ruins of ancient Egyptian temples were discovered, and an abundance of the most curious views were taken, until the further progress of the enterprise was stopped by an endless chain of sandhills. Of all these strange objects Remelé-has made splendid pictures, which together form an album of about eighty subjects. The Viceroy has ordered hundreds of these to be made at his own expense, which he intends to present to prominent educational institutions.

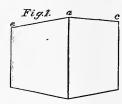
Lately I made an observation on the peculiar effect of perspective in photography. A sculptor constructed a splendid monument-a kind of mausoleum. The same presented a cubical base, surmounted by a cupola. The plaster model of the building was about three feet high. The building itself would reach a height of sixty feet. To show his work, the sculptor ordered a photograph to be made of the model, if possible, with landscape surroundings. After much trouble, the photographer fulfilled all these conditions. He placed the model in front of a landscape background, on an artificial hill, in which pots with cypress and myrtle were buried. A plate of sixteen inches was made from this model. Everything succeeded, and the photographer was satisfied with his work, and others who saw it praised it highly.

The picture was handed to the sculptor, but he was by no means delighted. He did not say a word, paid the bill, and left. He took it to the Artists' Society, and demonstrated to his colleagues that photography is utterly unable to make a correct picture of anything.

We experience here quite often that artists take a delight in taking hold of inferior pictures, and to demonstrate from them the incapacity of photography.

The mausoleum mentioned above made indeed a rather peculiar impression, which was felt by persons who did not understand anything about art. The landscape looked quite natural, but the building unnatural, although not every one could explain why. The reason of this laid in the perspective proportions.

If we take a photograph of a cube one foot high, and place the objective on a level with the cube, the edges will separate but little, and the cube will look as represented in Figure 1. If, on the other hand, we photograph a cubical building which is

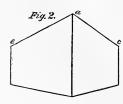


sixty feet high, and place the camera at the foot of the building, then the lines of the cornices, a e and a c, will "tumble"

very considerably, as the artists call it, and the higher the building is, the more marked will this appear.

The monument appeared in the picture exactly as Figure 1. The lines of the cornice did not fall sufficiently, and did not give the same impression a high building would make.

The question arises, could this be avoided? At first sight this seems impossible. And still it can be done. If we photograph a cube, and place the objective at various distances from the camera, we will find that the lines tumble more and more the closer we get to the cube. When we get very



close, and the objective is on a level with the base of the model, we will obtain a picture like Figure 2. Such an ap-

proach is possible with a correct working wide-angle lens, as, for instance, the Zentmayer. Such lenses have sufficient depth, and make it possible to work at very short distances. If such an intrument had been employed in this instance, a splendid picture of the model would have been the result, which, also, would have made the impression of a large building. We often complain of the exaggerated perspective of wide-angle lenses. In this instance it would have been no disadvantage.

Yours, very truly, Dr. H. Vogel.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

In my last correspondence I alluded to the objective made by Mr. Prazmowski, under the direction of Mr. Janssen, for the photographic observation of the transit of Venus; to complete these details I must make known to you the instrument that is to perform the function of a multiplying frame and of presenting to the focus of the glass, acting as a camera, the sensitized plates destined to receive the images.

It consists of a table placed in a circular box, adapting itself perfectly to the lower extremity of the glass; this table is toothed, and is worked by a pinion having detached teeth, which communicates to it an alternate angular movement of the extent of the image to be produced; in other words, it causes it to turn progressively as fast as each image is obtained, and to an extent corresponding to the size of this image. Before the box, and fixed upon the same axis that supports the table, is placed a disk pierced with slits (the openings of which can be regulated), and which turns with a continuous movement. Each time that a slit in the disk passes before the one made at the bottom of the box, an equal portion of the sensitized plate is thereby uncovered and an image is produced. In fact, this apparatus might be correctly designated under the name of the "phenakisticope revolver." It is well understood that the movements are so regulated that the sensitized plate is in perfect repose when one of the windows above alluded to opens upon it.

By the aid of the system adopted, and of the two apparatuses, the objective and table, Mr. Janssen hopes to be able to follow the phases of the phenomenon, and to reproduce photographically each one of the contacts. The trials that he has already made, and the images he has already shown, go far to confirm this hope.

At the last monthly meeting of the committee of the Mutual Relief Society for Photographic Employés, it was decided that a letter of thanks should be sent to Dr. Napias for his useful work on the special hygiene of photographers, from which I have sent you some extracts. This letter expresses the sentiments of all those who have read these articles, and it is to be hoped that it will encourage the Doctor to continue studies which can render important services to all.

The lighting of photographic ateliers is a question which interests operators in the highest degree, and the solution of which presents great difficulties. Light, the "raw material" of the photographer, as it is called by Nicephore Niepce, is not always of a good quality, especially in large cities in which the agglomeration of houses contributes to its vitiation. It is then necessary that the photographer should use a number of ingenious devices to remedy this There is another aspect under which this question should be studied. If the operator should seek to obtain as much light as possible, he must guard against the serious difficulties produced by the heat, which reaches him at the same time and in the same proportion. I have received on this subject, from a photographer in the south of France, a communication which seems to me to be interesting to all operators. His atelier, which is 8 metres (26 feet) long by 3½ metres (11 feet) wide, is constructed, as are many others, on theroof of his house. It is thus completely isolated from the neighboring buildings, and is protected in its length from the heat of the sun only by a thin partition; the upper portion of the sash, composed of ground-glass over an extent of 5 metres (16 feet), receives the light directly.

It is easy to understand that in theseconditions, and in this southern climate, the unfortunate photographer should haveoften had in his atelier a temperature exceeding 45° Centigrade (113° Fahrenheit).

During the summer he was consequently obliged to stop all work. To remedy this state of things, so inconvenient to his customers, so injurious to his health, and so detrimental to his interests, my correspondent has found a method which has given him complete success, and which he recommends to his fellow-workers. This consists simply in spreading on the glass sash and over all the surface a linen cover which can be drawn up at will by means of a simple mechanism. It is indispensable to leave between this awning and the glass sash a space of about 80 centimetres (32 inches), so that the air may freely circulate. Thanks to this system, the thermometer indicates in the interior of the atelier but a few degrees more than on the outside, and with a northern exposure; and what is remarkable is, that the light is not sensibly diminished; besides, if it is necessary to operate in a specially rapid manner, to make a child's portrait, for example, the mechanism is put in motion and the awning for the time being is drawn up. Thus, during the necessary time, the maximum of light is obtained without any great increase of the interior temperature.

I am one of those who have insisted for a long time, in France, that photography should find its place, if not in all lyceums and colleges, side by side with natural philosophy and chemistry, of which it is the application, at least in the special schools in which are formed our staff officers and our engineers; unfortunately instruction here is one of the things least accessible to reform, and consequently to progress. It is true that permission has been given for the delivery of some lectures upon photography in such large scholastic institutions as the Polytechnic School, the Naval School, and the Central School of Arts and Manufactures, etc., but the course only consists of a few hours' instruction each year. The only exception is the School for Civil Engineers; there our art is taught in the most complete manner theoretically and practically. You will understand that I do not exaggerate when I add that the talented professor is Mr. A. Davanne.

Three years have already elapsed since this eminent experimenter has undertaken these lectures, and he has just sent me a synopsis of them, forming a pamphlet in folio of 54 pages. In this limited space Mr. Davanne has succeeded in condensing all the information indispensable to operators. In order to give to the readers of the *Philadelphia Photographer* an idea of the manner in which Mr. Davanne has treated his subject, I will give an extract from the introduction to the chapter treating of dry processes: they will there find observations which will prove useful to them.

"The different methods of dry processes are numerous; we shall study only those which are most in use and which give the best results. These are, in our opinion, the albumenized collodion (Taupenot process); the collodion and tannin; the dry wax-paper, now but little used. In all these processes the starting-point is the same: the obtaining of a coating of iodide and bromide of silver on a permeable and insoluble medium; but whatever may be that medium, from the time when the preparation commences to dry, the nitrate of silver in excess becomes concentrated; it reacts on the soluble salts of silver to form crystals of iodo-nitrate of silver, which destroy completely the prepared surface. Besides, the nitrate of silver reacts on the organic matter of the sensitive coating, impairs it, and renders impossible the development of a passable print. Therefore, as a first condition, it is necessary to wash the preparation and remove all excess of nitrate of silver; the consequence is an immediate diminution of sensibility, so that up to the present day all the known dry processes still remain a little less sensitive than the wet collodion, although much progress has been made in this direction. As a second condition, it is necessary to maintain the permeability of the coating; it is for that reason that we cannot use ordinary collodion simply washed, for in drying on the plate it loses its spongy texture, and is transformed into a pellicle impervious to liquids, giving only a superficial print without any vigor, because the reagents cannot penetrate the thickness of the coating. A very old collodion, impaired by age, or one made with gun-cotton, powdery, and of bad quality, produces a disaggregated coating more

easily permeable by reagents, and gives, used dry, after a simple washing, acceptable prints, but always inferior to those made by the processes which we are going to describe if they are well used. The general process for dry collodion consists, then, in leaving in the pores of the collodion a soluble or permeable substance which can, in the developing, be replaced or penetrated by the reagents."

After having thus set forth the ingenious theory of the dry processes, Mr. Davanne gives the description of the principal methods. I repeat it, this manual is one of the most complete that has ever been written; unfortunately it has been only autographed, and but a few copies struck off.

Since July 1st the French Photographic Society and the Syndical Chamber are taking their vacation; but the majority of the members only dispersed after having made provision of apparatus and new products that they intend trying in their excursions. For photographers it is the season, not of rest, but for study and experiment. I will inform you of the interesting events which cannot fail to be communicated to me.

HINTS UNDER THE SKYLIGHT.

BY R. J. CHUTE.

THE LIGHT AND THE SUBJECT.

DIFFERENT subjects require different lights. This is well understood by all experienced posers, but there are many who are inquiring, whose experience has been limited, and whose minds are open for the reception of such additional light and knowledge as may help them up in the way of improvement towards the goal of excellence. There are certain standard rules or conditions which are to be observed with a subject possessing fair and favorable qualities; that is, regular features, rather fair complexion, and steady nerves. With this class of subjects, we say light at an angle of forty-five degrees, quite subdued, with about such appearance of light and shade on the face as is desired in the finished picture. From this as a standard there will be encountered a great variety of exceptions. In one direction they run down through the tender grades of youth to the soul-harrowing baby, that must be caught almost as a bird on the wing. In the other it goes up into the stern and swarthy hues of muscular manhood, and on through the period of silvering locks and declining years, down to the other end of the scale, where we must deal with trembling, tottering old age.

The fair complexions of children make them favorable subjects for photography, and the difficulty sometimes of keeping them still is offset by the advantage of rapid execution. To gain this rapidity, however, usually requires a different arrangement of light, or in other words no arrangement at all, for the best method is to use all there is to be had; an impression may be secured in such a light with a very near approach to an instantaneous exposure. With light drapery, which only is appropriate for children, and which the photographer should always insist upon, the subject itself becomes a source of light, so that even dark objects surrounding become sufficiently illuminated for very rapid work. From this it will be seen that but little effort or skill is to be exercised in the lighting for very young children, the main thing being to manage them so as to secure an impression, with all the light that can be brought to bear. This usually calls for all the resources a man is possessed of.

Proceeding from our standard in the other direction we soon find exercise for all the talent we may possess in adapting the light to the various subjects that come before us. The first may be one of the lords of creation, who ordinarily might be an excellent subject, but having just returned from his summer vacation, when he has promised his picture to an indefinite number of friends, with whom he went boating, fishing and hunting, he has become as brown as a piece of bronze statuary, and presents a face almost as difficult to photograph. In country places these subjects are common the year round. To light such a face the main point is to avoid shadows. The softest light possible must be had, and then the shadows will be strong enough. The resulting picture bears little comparison to the actual light seen on the face; both light and shadows are exaggerated, and violent contrasts intrude themselves, unless great care is taken to get a subdued light, and give a liberal exposure.

The subject with thin features, sunken cheeks and eyes, requires to be set well back from under the light, using a low frontlight as much as possible. A top-light gives the shadows too strong under the brows and on the cheeks, while a side-light makes too much contrast between the two sides of the face, one being strongly illuminated and the other in deep shadow. Subjects with coarse heavy features and those wrinkled with age, require similar treatment.

Those with gray or white hair are often excellent subjects, but a diffused light is necessary to avoid rendering the hair an indefinite blotch where the strongest light falls. With many of these subjects something of the Rembrandt style of lighting is very effective. The hair is kept mostly in shadow, and all its detail is given with the utmost fidelity.

As we approach the second childhood of our subjects, the feeble, unsteady nerves often compel a resort to much the same practice that we use in the case of little ones,—plenty of light and short exposure.

It is not only the difference in the subject that requires a modification of the light to suit the occasion, but it is the difference in the size of the picture. A light that would be suitable for a small picture, such as a card or cabinet, would not do for one of imperial or half-life size. The larger the picture the less contrast must there be in light and shadow. The theory of this is obvious if we consider that the amount of light received in the middle-tints or half-shadows on the face is concentrated into a very small space in the card photograph, we will say the half of a square inch, and acquires considerable vigor, but when the same amount of light is to be distributed over three or four square inches of surface, as in the halflife size, it becomes too feeble to be sufficiently assisted by any additional length of exposure that may be given. The only remedy, therefore, is additional light in the shadows, or, in other words, but little contrast in light and shade.

BIBLIOGRAPHIC.

It gives us pleasure to announce a second edition of the *Handbook of Photography*, by our good friend, Prof. H. Vogel. We have before us a copy in German, and find it greatly improved. New and important matter has been added to it, including the recent researches of the author, covering a large number of pages.

We congratulate the Professor on this evidence of the appreciation of his work in his own country, and hope the demand may call for many succeeding editions.

It was scarcely announced that a new edition was to appear in Germany, when we discovered that our American edition was about exhausted, and we set about making arrangements for the issue of the second edition here. We expect to publish it in a few weeks with all the additions and improvements. We are satisfied the work has lost none of its popularity in this country, or in England, and we shall feel a great deal of satisfaction in offering this revised edition of Dr. Vogel's Handbook of Photography to American photographers.

PHOTOGRAPHY IN AMERICA. A complete Treatise of Practical Photography. By A. Liebert. Second Edition. Paris.

This is a new French work just issued, and one, we have no doubt, that will fill as important a place in France, as Dr. Vogel's does in Germany or America.

Mr. Liebert is one of the leading photographers of Paris, and was referred to in very high terms in our "French Correspondence" recently. He was for some years a resident of this country, and we are glad he found so much here that was valuable and instructive, as to lead him to incorporate it into his book, and give it the title of Photography in America. In his "Preface," the author, referring to the purpose of his work, and the want of something more practical and comprehensible than has heretofore been published, says: "It is to fill this want, and at the same time to place under the eyes of our readers a comparative statement of the processes and material used in the United States of America, and of those used in France, that we have prepared this work, by means of which any

person of moderate intelligence, and without a practical knowledge of chemistry, will be able to practice photography, and easily arrive at satisfactory results."

We wish all photographic writers would resolve to profit by Mr. Liebert's example in the following, the italics being our own:

"We will endeavor to give in the shortest and clearest manner possible all the formulæ used by us, and which have given us the best results; by this means saving beginners the fatiguing and costly experiments that we were obliged to make; they will thus, without much labor, profit by our long experience."

Our own country is made up so largely of representatives of other countries, many of whom find it difficult to acquire a thorough knowledge of the English language, and can receive instruction much better through their native tongue, that we would suggest that the two works we have noticed above might be very useful to our German and French photographers, and we will be glad to supply either that may be ordered through us. Price, \$4 each.

Instruction in Photography. By Capt. Abney, R.E., F.C.S., F.R.A.S. Another new work issued by Piper & Carter, London. Benerman & Wilson, Phila.

The name of Captain Abney is, doubtless, familiar to most of our readers, and we should say he has here given us a very practical and useful work. It is only about the size of our Mosaics, yet it contains full details of the Wet Process, about all the "Dry Processes" in use; several methods of "Mechanical Printing," "Photolithography and Zincography," besides "Hints on Apparatus," "Defects in Negatives," "Select Processes," "Silver Printing," "Theory of Photography," etc., all in a very concise and readable form. We have it for sale. 75 cents.

INDUSTRIAL EXHIBITIONS.

THE Fifth Annual Exhibition of the Cincinnati Industrial Exposition is now open, and with evidences already of more abundant success than its favored predecessors experienced. It looks as if these annual exhibitions would become permanent insti-

tutions in all the leading cities. Already Chicago, Louisville, and Indianapolis have imitated the example set by Cincinnati, and no doubt the result of your great Centennial will induce the managers to continue it on from year to year. Your Director-General, Mr. A. T. Goshorn, is a gentleman who has had ample experience in the duties to which he has been called, and I can heartily commend him to you as a gentleman in every way qualified for the posi-What comments I shall have to make upon the display here must properly be confined to the Art Hall. Power Hall, with its acre or more of working machinery, Floral Hall, with its grottoes and cascades of flowers, and the multitude of articles exhibited, which go together to make up an exposition, suggest subjects which are not suited to a photographic journal. tography, however, is allied to the arts, and those who have won distinction in her ranks are as much entitled to be considered artists as those who have gained honor and fame with canvas and palette. It is this intimate relationship which reminds me of the great advantage which these annual exhibitions of fine paintings possess for the photographer ambitious to advance in his chosen field. Here spread before him are the works of eminent American artists, Bierstadt, Church, Whittredge, Durand, and De Haas. Germany sends her best representatives, Achenbach, Knaus, Muller, Hoff, and Meyer, while France with greater prodigality presents the names of artists known the world over; Gerome, whose pictures are always sold before they are finished; August Bonheur, who is fast gaining the reputation of painting animals better than his sister Rosa, Decamps, Jules Breton, Meissonnier, Lamberet, Bouguereau, Cabanel et al. The collection of engravings and water colors is also quite extensive, particularly the engravings, showing the advance in the different departments, from almost its earliest introduction. Mr. Claghorn of your city has kindly loaned his valuable collection, without doubt the most complete of any in this country. These exhibitions of art, more particularly the display of photographs at our annual conventions, make their impress for good on the photographer,

and I am happy to include as an aid to this effective agent, your valuable journal and the current literature of the profession. The two causes put together have worked a wonderful advance in photography during the past five years. One has but to compare the prints of to-day with those made a few years back, to note the effect of this rapid progress. As he looks at the old pictures he smiles as he thinks that he ever regarded them with favor, and wonders how he could have been so blind to the requirements of art, and so ignorant of all rules of good taste. Then if he still has any doubts on the subject, let him note in comparison the difference in style-or rather the lack of it -in the frames and mats which he formerly used, and those with which he now embellishes his pictures. The cheap oval imitation rosewood frame was then generally used, and the polished black walnut and the various patterns of square frames of veneered mouldings, which add so much and set off our modern photographs, were not then in vogue. Dealers more than photographers themselves notice this change for the better. Mr. Collins will tell you that the card mount, which was the standard card a few years ago (number two, gilt), has been replaced altogether by others of a better grade and costing twice as much. The American Optical Company's apparatus has almost entirely superseded the cheaper quality of boxes, and in all branches of photographic materials, the best always commands the readiest sale. These few items which have suggested themselves as showing progress in the right direction, have been attributed in a great measure to the results of our photographic exhibitions and the exposition of fine arts, which are becoming a feature in the United States. The subject has been barely touched upon, but enough has been stated, let us hope, to find abundant encouragement for the perpetuation of the National Photographic Association and the public display of photographs. D. K. CADY.

THANKS to Scovill Manufacturing Company, New York, for lists of new importations— German glass baths, glassware, filters, Joseph paper, B. P. C. glass, etc. Also of roller presses, printing cards, Phenix collodion, varnishes, etc.

SOCIETY GOSSIP.*

Pennsylvania Association.—The competing pictures were voted upon by the Association, and on the question as to whether they were up to the standard, there were but two dissenting votes. Mr. H. F. Smith had a majority for his picture, and was awarded the gold medal

Mr. Saylor expressed himself as much pleased with the work exhibited, and said he would be willing to give anybody a gold medal that would enable him to do as well.

The Secretary thought that notwithstanding there were but few competitors, we had seemed to accomplish something by having a standard picture. It had stimulated those who did compete, and the result was some work that was almost unanimously declared up to the standard by a vote of the Association, and much better than any that had ever before been presented.

Mr. Clemons made some remarks on the use of alum for prints after fixing. He had found that putting them through a saturated solution of alum, letting them remain in the bath about two minutes, rinsing well, and repeating the operation three times, freed them from hypo completely. He had been unable to discover any trace of hypo by the most sensitive test. Mr. Clemons read the article by W. H. Sherman, in the Philadelphia Photographer for September, referring to his process, and took exceptions to Mr. Sherman's claim that the sulphur remaining in the print would destroy it. He had experimented by soaking these prints in a sulphur bath, and had proved that after being dried the sulphur had no more action on the print than if it had never been submitted to it.

Mr. Trask spoke of having had trouble with iron for developer. He had used a sample that caused a precipitate on the plate soon after the development commenced. It grew worse as he used it and soon became worthless, fogging the plate soon after the developer was poured on. He thought much of the trouble photographers experienced in this direction was

^{*} Now the season for the meeting of societies has arrived, we would be glad to have from the Secretaries full reports of their meetings.—ED.

due to the inferior quality of the iron. The sample he had found trouble with had a yellowish appearance as if it contained traces of sulphur.

Mr. Smith spoke of noticing the same appearance and having the same trouble as Mr. Trask.

The Executive Committee of the National Photographic Association.

A MEETING of the Executive Committee was held in New York on the 10th of September.

The report of the Local Secretary, Mr. Hesler, was read and referred to the auditing committee.

A letter was read from President Rulofson, announcing his safe arrival home, and the satisfaction expressed by the Western photographers at having one of their number made president, and their disappointment that San Francisco had not been chosen as the place for the 1875 Convention instead of Boston.

The publication of the annual report was discussed. The Treasurer reported less than 200 copies subscribed for, whereupon it was resolved that the report be not printed until 300 copies were paid for, or if the members pay their dues by November 1st, the report will be printed and sent free to the members, and the money received for copies, returned to the subscribers.

It is hoped that this last plan will be popular, and that the dues will be forthcoming at once, and the interesting report no longer delayed.

MATTERS OF THE



Membership costs \$2; annual dues, \$4, in advance. Employés half rates. Life membership, \$25, and no dues. It is proposed presently to double the fees for life membership.

Members are hereby notified that their annual dues were payable June 1st, 1874.

Employers \$4, and employés \$2. The Treasurer urges that prompt remittances be made. Please remit now,

All remittances of back dues should be sent to the Treasurer, Albert Moore, 828 Wood Street, Philadelphia, and fees and dues for new members to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Notes.—All those who agreed to become life members at Chicago have not sent in their fees yet, and the list cannot be published until they do.—The 1874 badge may be had of the Permanent Secretary. Send a three-cent stamp for postage.—Your dues were due June 1st. Have you paid?—Read the report of the Executive Committee.

What will they Do with it ?- The Proceedings of the Chicago Convention seem to trouble the Executive Committee considerably. It is a shame that they should be so perplexed, but it is one of those things which result from the unthinking way in which conventions transact their business. When the Association started, the publishers of the Philadelphia Photographer volunteered to print the Proceedings free of charge in return for the privilege of the exclusive right to do so. This privilege the Association thought best to withdraw, yet our publishers continued to give a complete report all in one issue, while those who hankered after the "lucrative job," garbled up the report, and spread it through nearly a year of numbers. Not content with this, the Association voted at Buffalo that the Proceedings should be published entire in the Philadelphia Photographer, and five hundred extra copies printed for members who do not get that magazine. This was unwise, for the treasury was too poor; and it was unnecessary, for the publishers would have printed the report free in return for the original privilege of exclusive right. But the voice of the Convention was "no." Their desires were followed, the Association run in debt, and complaints made of the cost. Discontent again arose, and at Chicago it was voted that the Association deprive all magazines of the privilege of printing the report, and undertake the work itself, and sell the copies at cost.

Thereupon an effort has been made to sell. the copies, and not enough have been sold to pay for the report, and the dues being unpaid, the Treasury worse than emptyoverdrawn-and the Association in debt, of course the report cannot yet be printed until more subscriptions come in or the dues be paid. We do think it a wrong policy, to say the least, to charge for the report. There are many noble members who live where they can never expect to be able to attend a convention, but who pay their dues promptly, because they see the Association is doing good, and who are justly entitled to a copy of this report free. We do hope, therefore, that the dues will come in thick and fast this month, that the dollars will be returned to the subscribers for copies of the report, that the "lucrative job" of printing the report will be given to somebody, and that a copy of the same will be promptly sent to all members whose dues are paid, free! Gentlemen, if the Association is worth upholding at all, fulfil your obligations to it. You will regret it if you allow it to go down, and if it goes down, you have had a great deal more fair warning than we have any business to give you, but our earnestness must be our excuse for our presumption.

OBITUARY.

A VETERAN GONE.—We regret to be called upon to announce the death of one of the veterans of photography, Mr. F. B. Gage, of St. Johnsbury, Vt., which occurred on the 23d of August, 1874. From Mr. Gage's family we learn that he was born July 29th, 1824. He learned daguerreotyping when about twenty-two years of age,

and in 1850 started the photograph business in St. Johnsbury, where he continued to conduct it for a period of twenty-four years, or up to the time of his death.

Mr. Gage enjoyed a good reputation as an artist, and was one of the most industrious experimentalists in the business. To him the fraternity owes much of the progress that has been made in the various photographic processes. In July, 1869, he patented in the United States, Great Britain, and France, a process for using diffused light in the camera for the purpose of giving detail "so as to render visible slight gradations of shade, both in the light and dark parts of the picture, and to unite softness and strength."

We well remember meeting Mr. Gage in New York, by his request, to examine the merits of this invention, and how we were almost sworn to secrecy before he ventured to reveal the principle on which his claim was based. Previous to this he also patented an improvement in photographic cameras. He was a man of more than ordinary genius, and somewhat eccentric withal, was always inventing and trying new processes. It is said he "hardly ever finished two sets of pictures by the same process."

Mr. Gage possessed a good deal of literary talent, was a frequent contributor to local publications of current literature, as well as to this journal on the various processes of photography, in which he always manifested a deep interest. It is sad to see the pioneers of our art passing away from us, and when such men as Mr. Gage go, they leave a vacancy that is not easily filled, and their memory is cherished by those who are benefited by the results of their lifelong efforts.

Editor's Table.

PICTURES RECEIVED.—From Mr. Julius Hall, Great Barrington, Mass., a number of stereos of landscape, mountain, waterfall, and garden scenery, which are exquisitely fine in all the qualities that go to make up a first-class photograph. The subjects are well chosen, the com-

position is excellent, while the lighting and chemical effects are all that can be desired. From Messrs. Montfort & Hill, Burlington, Iowa, some stereos, cabinets, and cards, all very creditable work. The delineation of light drapery in some of the cabinets is very successful. A

fine cabinet specimen from Mr. E. E. Henry, Leavenworth, Kansas. From Mr. I. B. Webster, Louisville, Ky., some very successful card samples of the glacc process. Cards also from Mr. J. H. Lamson, Portland, Maine; J. Lee Knight; Topeka, Kansas; E. P. Libby, Keokuk. Iowa; C. M. Armstrong, Leon, Iowa; and Hood, Yarmouth, N. S. From Messrs Bradley & Rulofson, San Francisco, we have a photographic view of their display in the San Francisco "State Fair." It appears to be almost a whole picture gallery in itself. Accompanying the print is a notice from a local paper giving a full and flattering description. There is nothing equal to these state fairs and exhibitions for advertising a gallery, and our friends on the Pacific understand it.

IMPORTANT TO TOURISTS AND HEALTH-SEEK-ERS.—This is the title of a little pamphlet published by Duhem Brothers, landscape photographers, Denver, Colorado, giving some account of the climate, scenery, distances, etc., and containing a catalogue of over five hundred views of the wild scenery of the "Switzerland of America."

THE MAGIC LANTERN seems to have created a sensation, and lots of inquiries come in upon us, and lots of slides have gone out. How can any photographer be so unwise as to neglect this sure method of increasing his revenue during the dull months?

Wet Books (new lot) most gone. See advertisement.

OUR POSTAL CARDS, Nos. 1 and 2, have been sent to you. Look out for No. 3, and profit by them all. No. 4 may make you rich.

MR. W. H. RULOFSON has sent us some handsome views of the interior of the Industrial Exhibition at this writing open in San Francisco. One, of the special display of Messrs. Bradley & Rulofson, is particularly fine, as must the pictures also be. Mr. Rulofson is perfectly alive with energy seemingly, since his visit to Chicago. We hope he cannot keep away from the conventions hereafter.

THE BURNT-IN ENAMEL PROCESS.—Messrs. Robinson & Cherrill, who at one time offered an honest bargain to the photographers of the United States for the purchase of their improved method of producing these pictures, were "pitched into" by one Mr. Watson, of England, from whom, in the beginning of their experi-

ments, they purchased a process, Mr. Watson claiming that Messrs. Robinson & Cherrill were bartering' his process. It is a long story, and much ugly correspondence has followed in the English journals, and one of the American ones which "delights to bark and bite." Mr. Watson still insisting upon his claims, and threatening to prosecute the other parties, Messrs. Robinson & Cherrill have sent us his process verbatim as they got it from him, and it will be published in our next number, with a note from them. It came too late for our current number. They declare it to be "the whole of the Watson process."

THE PHOTOGRAPHIC YEAR-BOOK FOR 1874, published by Dr. E. Horning, Vienna, is before us. It contains a list of the various photographic societies of the world, many useful formulæ, biographical sketches, a complete calendar for the year, and much other useful information.

THE PHILADELPHIA NEW AGE, an admirably illustrated paper, says of the *Philadelphia Photographer*:

"Publications established as the representatives of some special interest are but too apt to get into some stereotyped ruts, and to rest satisfied with respectable mediocrity. But this is by no means the case with the Photographer. Each number exhibits signs of intelligent progress. The publishers are alive to all that is going on around them, as witness their zeal in behalf of the Chicago Convention, at which we are mortified to know the Philadelphia exhibitors were comparatively few in number. The editor contributes regularly his 'Views Abroad and Across,' which are illustrated with much humor, and to the 'German Correspondence' of Dr. Vogel, and 'Photography in France,' by Ernest Lacan, is added in this number 'Photography in Italy,' by A. Montagne. The technical articles are 'Alum,' by W. H. Sherman; Charles W. Hearn's formulæ; 'Hints under the Skylight,' by R. J. Chute, and many other useful articles."

KILBURN BROTHERS' VIEWS OF THE WHITE MOUNTAINS.—We have been taking our annual rest among the "White Hills"—delectable land—and of course made our usual visits to the fine establishments of Messrs. Kilburn Brothers, at Littleton, which we described in our May number. They are driving business most energetically. They can manufacture 10,000 stereo-

graphs per day. Recently they have published some most charming outdoor groups, such as "The Hop Gatherers," "The Harvesters," "The Last Load of Hay," etc., which are unexcelled. Their work is all first class, and their business continually growing, as it deserves to.

An Extra appears with our present number devoted to a sketch of the life of one of the most worthy men known to our art, Baron F. v. Voigtlander, the eminent optician, whose name is a household word among us. We have great pleasure in giving it space, as we always have in recommending the use of his lenses, for which Messrs. B. French & Co., Boston, are his agents. And where is the photographer who does not possess a Voigtlander lens.

PORTRAITS BY THE WOODBURY PROCESS .-We have before us a group of twenty portraits of the officers of the General Council of the Evangelical Lutheran Church of North America, printed by Mr. J. Carbutt at the American Photo-Relief Works, 624 N. 24th Street, Phila. They are very successfully executed, and demonstrate the capabilities of the Woodbury process. When we consider their absolute permanency, the pictures possess a value that will be appreciated by those who desire something in this way connected with historical associations, that will stand as a permanent memento of those who have lived and acted important parts in their Photographers who have respective spheres. such groups to make should employ Mr. Carbutt's aid.

MR. JOSEPH ZENTMAYER, optician, of this city, has issued an illustrated price list of microscopes, microscopic apparatus, and optical instruments, which is beautifully gotten up, and will be useful to those interested in this direction.

THE Western Photographic News makes its second appearance much enlarged, and showing evidence of enthusiasm and enterprise in the work. The subscription price is placed at an extremely low figure, and we fear our friend of the Great Central will find it a costly advertising medium.

Mr. A. W. Simon, of Buffalo, sends us some fine stereographs of the ruins of Fort Erie.

ART AFLOAT.—Mr. J. P. Doremus, of Paterson, N. J., has built a floating gallery, in

which he proposes to "do the Mississippi Valley." In the spring he intends to add a small steamer to tow his establishment, which will make him a whole team. A novel idea.

MR. W. H. ILLINGWORTH, of St. Paul, Minn., has issued a neat catalogue of stereoscopic views in Minnesota, Dakota, Wisconsin, and Colorado, which are photographed and published by him.

DURING our recent visit to New Hampshire we had the pleasure of visiting the studio of Mr. Frank G. Weller, whose "Stereoscopic Treasures" are so widely known. In this line of genré composition, or life pictures, Mr. Weller has few superiors. He has just commenced on a new series of his treasures, a specimen of which is before us, entitled "Ancient and Modern Music," the instruments being the old-fashioned spinning-wheel and the modern cabinet organ or piano. The new series will be announced in Mr. Weller's advertisement, as they are issued.

OLD WALNUT FRAMES AND FURNITURE MADE TO LOOK LIKE NEW .- How many old frames and pieces of furniture there are in every gallery that, having become rusty and bruised, are thrown aside, or mar the appearance of the whole gallery if kept in use. We have recently used an article, called "Spicer's Lustrene," which restores the bruises and scratches, by not merely polishing over the wood, but it fills all indentations, making the surface as complete and perfect as new. We can testify to the merits of this article as being all that is claimed for it, and for those who like everything looking trim and neat about the gallery there is nothing more useful. The cost is trifling. It is for sale by Charles A. Wilson, Baltimore, whose advertisement will give further information.

MR. WALTER C. NORTH, late of Utica, N. Y., informs us that so far his experience as a teacher in photography has resulted to the entire satisfaction of his several pupils. Spending two or three weeks at some places, he has entirely renewed and rebuilt the business of parties, the good results produced entirely changing the whole state of affairs. Mr. North intends opening a school of instruction at Columbus, Ohio, full particulars of which will be given in our next issue. Meanwhile, those desiring his services may address him, care of W. H. Limpert, photographer, Columbus, Ohio.

BARON FREDERICK v. VOIGTLANDER.

BIOGRAPHICAL SKETCH.

TRANSLATED FROM THE BIOGRAPHICAL LEXICON OF THE INTERNATIONAL EXHIBITION HELD AT VIENNA IN 1873.

BARON FREDERICK V. VOIGTLANDER, a famous German optician, and the subject of this sketch, is a descendant of a long line of opticians, who, for more than a century, have been celebrated for their genius in inventing and skill in constructing optical and technical instruments. The grandfather of the present representative of the firm "Voigtlander & Son" constructed several mathematical instruments which are used in the Austrian army at the present time. His father was the inventor of the double opera glass, while his maternal grandfather, Tiedemann of Stuttgart, was the first optician of his day in Germany, his telescopes being considered equal to those of Dollond and Ramsden. Thus, with an ancestry so distinguished in their peculiar branch of scientific labor, and with his own tastes and talents so clearly defined in the same field, it was easy and natural for Voigtlander to take up and continue the profession so successfully and honorably followed by his predecessors.

He was born at Vienna in the year 1812, and, after the completion of his collegiate course, received from his father the first practical instruction in the profession in which he was to attain such marked success. Subsequently he pursued a course of scientific study at the Institution of Polytechnology, and then several years were spent in Germany, France, and England, in study and research, by which his practical and scientific knowledge was greatly enriched.

In the year 1835 his father retired from business, and Voigtlander became the head of the firm. Like Frauenhofer, he applied himself to the calculation of the refracting and dispersing powers of glass, and constructed an apparatus to execute any given radius up to 0.0005, intending to make telescopes of larger dimensions than those he had already produced, and which Stampfer, Schuhmacher, and Gauss considered superior to those of Frauenhofer. In 1840 he made the acquaintance of Professor Petzval, after whose design he constructed the first Double Portrait Lens. From the discovery of this instrument dates the rise of modern photography, as previous to its invention it had been impossible to secure the likeness of an animate object, owing to the want of a sufficiently quick and correct working lens. In this way new avenues were opened to the photographic art, and Voigtlander entered the field with an intelligence, energy,

and perseverance worthy of so great an invention. Soon his name was known throughout the world, and Vienna became the centre of an industry which France and England could neither imitate nor control.

As a man of business he was eminently successful, uniting with his practical knowledge a rare ability for organizing and establishing agencies in the chief cities of the old and new world. Soon a second establishment became necessary for the manufacture of lenses, and Brunswick, the capital of the Grand Duchy bearing the same name, was chosen, and to that city, in 1849, Voigtlander transferred his family and home.

In a short time afterwards he produced his Orthoscopic Objective, after Petzval's design, and notwithstanding large numbers of view-lenses of different varieties appeared, the "Voigtlander's" retained their high position, surpassed by none of their competitors. The masterpiece of his skill, however, is the Double Objective for Portraits, of which he has constructed eighteen different sizes, the sales of which have reached the extraordinary number of twenty-one thousand, an undeniable proof of their superiority, the many attempts of other makers to produce instruments of equal excellence having proved unsuccessful. The invention of the Petzval-Voigtlander was the result of the combined talent and scientific knowledge of the gentlemen whose names it bears, and most of the optical instruments were thenceforth constructed after Petzval's new theory, which had already been applied to the Double Objective. But the hopes of the scientific world were not to be realized, as some disagreement arose between these two gentlemen, which ended in their separation. Says Bollmann, in his Photographic Journal: "It is to be regretted that two men of so eminent ability were destined to remain united for so short a period, as we had hoped to greet many new acquisitions in science; but as it is we are at all events grateful for the possession of such men." It appears here the proper place to express our deep regret that Voigtlander was obliged, partly by the death of his business manager, and partly by circumstances which could not fail to impress him deeply, to relinquish his establishment in Vienna. Almost all the leading journals of that city contained articles expressive of sorrow at his departure.

In 1842 he achieved another triumph in the invention of an improved double opera glass, the peculiarity of which consists in its achromatic eye-pieces. It is especially appreciated in England, where it is known as the "Voigtlander," and is used in the army and navy, at theatres, races, etc.

Personally, Voigtlander is a man of commanding presence, possessing a grand physique, indicating vigorous health; a well-developed head and expressive countenance, showing him to be a man of quick perception, deep thought, excellent judgment, and superior mental qualities, while his manners are courteous and pleasing. His intellectual attainments are by no means confined to the specialties connected with his profession; for he is a man of fine culture, speaking most of the modern languages with fluency, and, of the same nativity as Mozart, Beethoven, Schubert, he is not only a passionate admirer of classical music, but he is himself an amateur of no little skill. He has a large family, and in his



BARON FREDERICK V. VOIGTLANDER.

business affairs he is assisted by his eldest son Frederick, whilst his stepson, John Sommer, Professor of Mathematics at the Collegio Carolina in Brunswick, who has published a "Dioptric of Systems of Lenses," aids him in the theoretical branch of the business, thus enabling him to act as Chairman of the Board of Inspection of Industrial Enterprises and to become the leading spirit thereof.

A marked trait of his character is a noble benevolence and exalted feeling of humanity. He makes the best use of his well-earned fortune, and his name is always found in connection with enterprises which have for their object the benefit of his fellow-men. Among his more recent donations to societies and institutions may be mentioned 3000 florins to the army, 4500 florins to the Photographic Society in Vienna, and 20,000 florins for industrial purposes in Hungary. On relinquishing his Vienna establishment, he assigned pensions to many of his old workmen, their widows and families. In the city, where he had so long resided, and where he had won his highest success, there was a general feeling of regret, that a gentleman of so eminent ability and so noble a character, could not remain in his native country.

The valuable discoveries made by Voigtlander which proved of so much value in science and the arts, not only made him famous among men of his own profession, but received official recognition from various governments, scientific institutions, and societies. Among some of the most important awards given him are the following: In 1841 he received from the "Société des Arts et des Métiers," in Paris, a silver medal for the Double Portrait Lens; at the London Exhibition, in 1862, the first medal. In 1867, at the great Paris Exposition, the jury unanimously voted him the first position among all the leading optician, bestowing in addition the highest award—a silver medal. Emperor of Austria he received a diploma, and subsequently the "Order of the Iron Cross of the Third Class," whereby the order of hereditary knighthood was bestowed upon him. The Duke of Brunswick also conferred upon him the title and dignity of a "Commerzienrath" (Counsellor of Commerce); the King of Würtemberg, the Gold Medal of Arts and Sciences; the King of Bayaria, a similar decoration; and, in addition, Voigtlander is the receipient of numerous other orders, medals, and decorations.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.90, and 25 cents for each additional line, seven words to a fine—in advance. Operators destring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. As We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

For Sale .- I now offer for sale my fine Photographic Studio in this city. Population 120,000, location the very best. All on ground floor; operating room 24 x 40, with large top and side light, furnished with the best instruments and boxes, etc. Plenty of room in every department, and every facility for making the best work. Now doing a great business. For reasons that will be satisfactorily explained (to those who mean business), I will sell this gallery at onehalf its value. This is a fine opening for one who wants a first-class gallery in the best city for business in the United States. Please call upon or address W. C. EATON,

709 Broad Street, Newark, N. J.

See advertisement of Rapid Photo-Washer.

WE are well acquainted with W. C. Eaton and his gallery, and would advise those of our friends who may want a good place to investigate, that it is no second rate affair. Yours,

C. J. McCarty, with Scovill Mfg. Co.

THOROUGH WASHING is the only sure thing. Moulton's Washer will do it in a few minutes, and no risk, or uncertainty about it.

A FORTUNE FOR SALE.—Having engaged in another business, my gallery must be sold by November 1st. It is the principal gallery within a hundred miles, doing a fine business at good prices, best quality of work (as was seen at the convention), and has the cream of the trade. Best solar and everything else. The capital of the sta-e, a lovely city of 22,000 people, in the richest country. Will sell for \$4000.00 (invoice \$6000.00), or, taking out a few things not often used, leaving it still one of the best equipped galleries east or west, \$3000.00. Two-thirds down. Will pay for itself in a few months. The legislature here this winter will half pay for it.

J. Q. A. TRESIZE, Springfield, Ill.

FOR SALE AT HALF PRICE.—One of E. L. Brand & Co.'s largest Cameo Presses (the one on exhibition at Chicago), will be sold at half its cost. Address F. GUTEKUNST,

712 Arch St., Philadelphia.

Wanted.—If I do not sell out by October 15th' a good operator and a good printer, one of them must retouch, and a reception room hand. State terms particularly, and send photograph of self.

J. Q. A Tresize, Springfield, Ill.

GALLERY FOR SALE.—Cheap for cash. Population of the place 8000. Only one other gallery in the place. Call on or address with stamp

C. W. RUNDLETT, Watertown, Jefferson Co., Wis.

\$275,00 will buy a good ground floor gallery in the centre of a manufacturing town of 2600 inhabitants, in the best farming country. Gallery in operation 11 years. Good fixtures, good side and sky light. No opposition within 11 miles. Rent very cheap. Address

F. A. SOUDERS, Chambersburg, Pa.

For Sale.—The finest photographic parlor in the handsomest city in the state of New York. Entrance next door to P. O. Cash only buys it. Business for three persons, and lively. Address

WELL G. SINGHI, Binghampton, N. Y.

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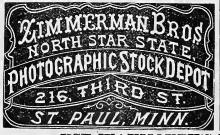
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SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

Fig. This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month.

J. Samo, President; Jennie M. Crockett, Sec'y. Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary, 27 Central Square, Cambridgeport.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N.Y.—Fourth Tuesday in each month, at 179 Montague Street. Rev. Dr. C. H. Hall, President; Chas. E. Bolles, Cor. Secretary.

President; Chas. E. Bolles, Cor. Secretary.

Photographic Society of Philadelphia. — Adjourned.

Pennsylvania Photographic Association, Philadelphia.—Adjourned.

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State

Chicago Photographic Institute, Chicago.— 1st Monday, monthly, at Chicago Art Institute. A. Hesler, President; L. M. Melander, Secretary, Chicago.

Maryland Photographic Association, Baltimore.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N. H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Association of the District of Columbia, Washington, D. C.—E. J. Pullman, President; C. M. Bell, Secretary, 459 Pennsylvania Ave., Washington. First Tuesday, monthly.

Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

Photographic Association of Western Illinois.—At Galesburg, first Wednesday of October, January, April, and July. S. T. Bryan, President; J. F. Barker, Secretary, Galesburg.

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- 9.-Vol. 8 (1871), Philadelphia Photographer, \$2.50.
- 10.-Vol. 1 (1871), Photographic World, \$2.00.
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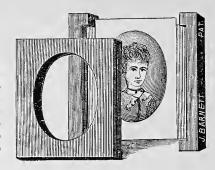
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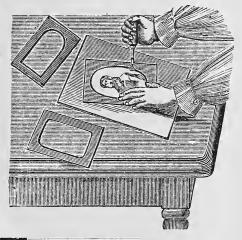
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- 2351. Dedication Parade, Sept. 26, 1873.
- 66

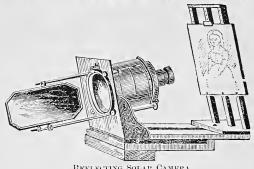
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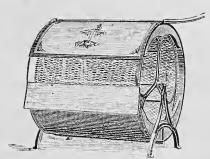
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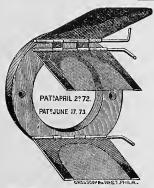
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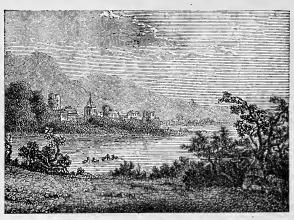
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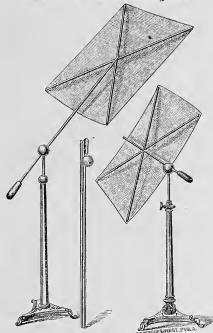
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[&]quot;Captain Abney's manual is unique in its class, in character as well as excellence. All the instructions, which are as simple, lucid, and easy to apprehend as they are accurate, are accompanied by explanations of the rationale of the operations to be conducted. The book is singularly valuable in its completeness, and in that completeness arising out of the practical experiences of a skilled worker in many varied branches of the art; the instructions are not, therefore, the work of a mere compiler. The work is, in short, the most comprehensive and trustworthy guide which has ever been issued within the same compass, in connection with protography, and will be consulted by experienced workers and heginners with equal advantage."—The Photographic News, February 6, 1874.

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Advertising, Enterprising Photographers, Look!

The Photographer to his Patrons.

WHAT IS IT?

HE PHOTOGRAPHER TO HIS PATRONS is a little book or pamphlet of twelve pages, the intention of which is: 1st. To enable the photographer to say a few words in a kindly way to those who have photographs taken, in order that the intercourse between them and their photographer may be pleasant and result in the most successful pictures. Every photographer knows that he is constantly beset with a lot of questions, as to the proper way to dress, the best time to come, and so on, which take a great deal of his time to answer. This little book answers them all, and the mere handing of a copy to the questioner, which he or she can carry away and study at leisure, serves as admirably as a half-hour's conversation.

2d. It is a cheap mode of advertising. What could you want better than to have your business card so attractive that people will come and ask for it, hand it around from one to another, discuss it, and then keep it for reference? This is what they do with this little "tract." Witness what those who

have tried it say below.

3d. It is also intended to convey to the public at large the fact that photography is not a branch of mechanics, nor photographers a sort of mechanic themselves, but that both are entitled to respect, the same as the family physician or the minister; that the photographer has rights as well as the public; that he must be trusted, and that he alone is responsible for his results. Moreover, that he must make the picture and not they.

How far the work serves these three ends the reader must judge from the testimonials below, of a few of those who have been using our little publication in their business.

We believe it will pay you to use it, and that you will assist just that much in elevating your art and your craft, an object which we are all working for.

We get "The Photographer to his Patrons" up in neat style, on the best letter cap paper, assorted tints, green, pink, and buff. Eight pages are devoted to the body of the work, which contains paragraphs or chapters—1, on the object of the work; 2, on photography; 3, when to come; 4, how to come; 5, how to dress; 6, how to "behave; 7, the children; 8, general remarks on coloring, copying, frames, prices, &c.

All this is inclosed in a cover of the same kind of paper, the pages of which are at the service of the photographer who orders them to have printed thereon anything he may please, which printing we do without extra charge. We publish this leaflet in English, German, and Spanish.

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We invite you to examine the good words which our patrons have sent us concerning this publication.

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 - "A grand idea."-ELBERT ANDERSON.
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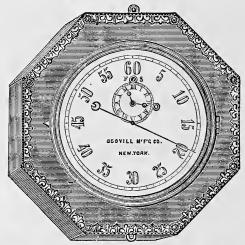
- "You have conferred a great favor on the fraternity in supplying it, and we hope it will benefit some of the 'know-everythings' in this quarter."—A. C. McIntyre & Co., Ogdensburg.
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	2.	34		6.6	4	x	5				25	0.0	61	2		6.6	3	4.4			40	00
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We will still keep a well assorted stock of

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Similar to "The Photographer to his Patrons," but written in different style, and more in keeping with the advanced state of photography, and photographers themselves. Its real intention is to supply you a means whereby you can cheaply advertise your business, and at the same time place in the hands of your citizens an argument in favor of photography, a few kindly counsels as to how to prepare for having a picture taken, and how to appreciate and understand a good picture when they get it. BENERMAN



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WILL MAKE BUSINESS,

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HELP RAISE PRICES.

(See Advertisement on opposite Page.)

BENERMAN & WILSON, Photo. Publishers,

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A NEW WORK ON PHOTOGRAPHIC PRINTING.

By CHAS. W. HEARN,

A gentleman who has devoted several years to photographic printing especially, and who is now engaged at it as his constant occupation.

The work gives all the instructions that a beginner could possibly want in detail, and is what the title indicates—practical.

It will also be found of invaluable service to any photographic printer, be he ever so skilled. For contents see opposite page.

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"I have read it with a great deal of interest, and find it indispensable to the student photographer.

"I have read it with a great deal of interest, and find it indispensable to the student photographer. It contains so much valuable information in modern photographic printing that I do most cheerfully recommend its usefulness to the student printer. Its cost is money well laid out."—C. D. MOSHER, Chicago.

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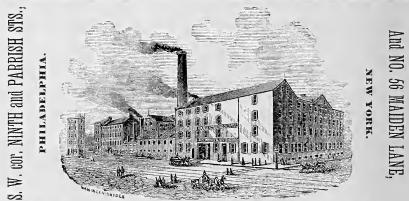
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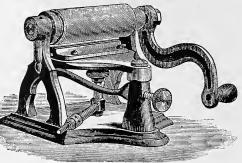
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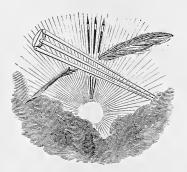
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A COMPLETE MANUAL OF PHOTOGRAPHIC PRINTING

ON PLAIN AND ALBUMEN PAPER, AND ON PORCELAIN.

Too little attention has heretofore been given to Photographic Printing, which is indeed quite as important a branch of the art as negative making.

It is the hope of both author and publishers to create **REFORM** in this matter, by the issue of this work, and as it is to put money in the pockets of all who read it, the hope is that it will be generally read.

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TESTIMONIAL.

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G. H. Sherman.

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By CHAS. W. HEARN,

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The work gives all the instructions that a beginner could possibly want in detail, and is what the title indicates—practical.

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The Photographic News, of July 31st, says: "In the work before us, however, silver printing and everything connected therewith is treated most exhaustively, and the work is evidently that of a practical man who speaks out of the fulness of his own experience in every branch of regular work, as well as with familiarity of the various forms of fancy printing, which have prevailed more in America than in this country. Mr. Hearn manifestly thoroughly understands his work, and is, moreover, a clear and vigorous writer."

The British Journal of Photography, of the same date, says: "It is a considerable period since we rose from the perusal of a new book on photography with feelings of greater satisfaction than in the present instance; and we appreciate the author as a writer, not only thoroughly conversant with the subject, but as very willing to impart to those less skilled the knowledge he possesses, and who, happily, has also the ability to do this in a singularly lucid and attractive manner. 'The Practical Printer' is well 'got up,' and the work cannot fail of being acceptable and useful to all classes of photographers, the veteran as well as the tyro in our art-science.''

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Philadelphia Photographer.

Vol. XI.

NOVEMBER, 1874.

No. 131.

Entered according to Act of Congress, in the year 1874,

BY BENERMAN & WILSON,

In the office of the Librarian of Congress, at Washington, D. C.

INDUCEMENTS FOR 1875.

It is not too early for us to announce to our readers the fact that the New Year is at hand, and that we are making preparations for it which we trust will be for our mutual good. We have also purchased the Photographer's Friend, published by Mr. Richard Walzl, Baltimore, Md., and will merge it into this magazine, thus making the Philadelphia Photographer the only photographically illustrated magazine in the world. It was the first and is again the only one. This valuable feature should not be forgotten. Many fine things are under way for 1875. We want very much to increase our circulation, and have concluded to offer to our present subscribers most extraordinary inducements to aid us in extending our usefulness. We have detailed the whole plan in our "red letter" sheet, and ask you all to carefully read and consider it. There are none of you unable to secure a premium, and we hope the competition will be very lively and strong. This is the way of newspapers and we must come into it. We prefer this plan to offering a chromo, costing ten cents, as a premium, under the pretext that it is worth \$5. Such stories are not true and we will not resort to them. Greenbacks and photographic publications are worth their face value, and we suggest that it will be to your interest to secure all you

can of both. Please read the "red letter' sheet thoroughly.

LANTERNIANA.

LEST our readers should overlook the humble little sheet called *The Magic.Lantern*, which we present them monthly, we beg to call attention to it, and also that many photographers are going into the exhibition speculation, and that they are delighted with it. See their testimonials.

Moreover we desire to say that,

1st. Our catalogue of apparatus and slides is ready, 10 cents.

2d. Our enlarged catalogue of foreign and American slides is ready, 15 cents.

3d. Wilson's Lantern Journeys, equally useful to the lantern exhibitor and the lover of the stereoscope, is also ready, \$2.00.

Therefore we are in condition, better than any one else, to supply, not only the materials for an exhibition, but a great deal of matter descriptive of the best pictures to be had. We ask for *The Magic Lantern*, this month especially, a careful reading, and also for our new advertisements the same consideration.

We really believe that, with a Lantern outfit in hand, such as we offer, any enterprising photographer can make more in his winter evenings than he can all day in his regular business.

Bold Prints from Flat Negatives.

BY CHARLES W. HEARN,

Author of "The Practical Printer."

A most excellent way to obtain fine, and indeed, excellent prints, from flat and withal poor negatives, is as follows:

Obtain from any bookstore some common tracing-paper, and place a suitable piece on the back of the negative that is to be doctored, sticking the four corners to the plate, so as to keep it in position. Now obtain a No. 2 Faber lead-pencil, and lightly place on the paper a few touches of the pencil, softening down with the ball of the finger. The greatest care is necessary, in placing this lead on, to do the thing in a nice manner. If too much is placed on the paper, erase with a common pencil-rubber. By reversing the plate, thus placing the varnished side of the plate towards you, you can perceive at a glance whether you have touched up as you desire or not. Any degree of boldness, together with porcelain softness, is thus obtained with the practiced hand. The negative should be printed under at least one ground-glass after the marked paper is placed in the negative. The above is not original with myself, but as I have proved its practical value, I can recommend it for the purpose to which it is destined.

THE "GLACE," OR ENAMELLED PHOTOGRAPH.

How to Do It.

BY I. B. WEBSTER.

The glass upon which the enamelling is to be done must be scrupulously clean. Plate-glass, free from scratches, is the best, although good photograph glass will doif not scratched. Blisters in the glass hurt nothing. After it is thoroughly clean, sprinkle over it, by means of a five-cent pepper-box, "powdered tale" (or French chalk), and with a tuft of cotton rub in a circular motion (carefully going over the whole surface) until no trace of the chalk is perceptible. Do not rub heavily. The chalk gives a surface to the glass that assists in the lifting the enamelled print from it. Now flow the

plate with collodion made as follows, viz., ether 4½ ounces, alcohol 3½ ounces, cotton to thicken (say from 5 to 7 grains to the ounce of solution), and 24 drops (or minims) of castor oil. When this flow is dry, apply the prints face down, after immersing them in a gelatin solution made as follows: Coxe's gelatin 1 ounce, water 8 ounces, glycerin 50 drops. Add the gelatin and glycerin to the water, and let it stand over night, when it will be ready for use after filtering, which can be done by warming sufficient to make the solution limpid. Allow the prints to remain in this solution about five minutes before laying them on the collodionized glass, and then pass a gum roller lightly over them to press them tightly to the glass, and also to remove the surplus gelatin. After the prints are nearly dry they are ready for the mounts. For this purpose light "Bristol-board" is best. Use the gelatin solution for mounting, and mount on the glass as the prints lay. The whole thing must be perfectly dry before an attempt is made to remove them from the glass. When they are dry run a knife-blade around the edge to start them up, and if thoroughly dry and the work properly done they will come off all right. I forgot to say in the proper place, that it is a good idea to lay upon the back, after the mounts have been applied, a weight of some kind, say a heavy piece of glass, which should remain there for an hour at least. This assists in securing a complete contact to the print. At the end of an hour remove the weight and leave the print, back up, until perfectly dry all through. Sometimes they start off without help, which shows perfect success. Remember that "careful manipulation" is the only surety for success. A little experience will enable any one to perform this operation well.

Details of Watson's Enamel Process.

TO THE EDITOR OF THE PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: A friend who was at the last Exhibition meeting of the National Photographic Association has sent us a circular, copies of which were, we were told, distributed at the meeting, in favor of Mr. Watson's process for enamels (Rutter & Co., Agent), in which we find the following:

"DEAR SIR: In answer to your favor respecting Enamels, I beg to say that our process, for which patent is applied for, is the same now used by Messrs. Robinson & Cherrill, of Tunbridge Wells, England, with the most complete success, and they state that the only difficulty they have is in not being able to supply the enamels fast enough, the demand is so great.

"Full printed details of the method will be furnished to you by mail, on receipt of P. O. M. Order for \$25.

"The printed directions contain everything necessary appertaining to the art, and are the same as forwarded to Messrs. Robinson & Cherrill, who in twenty-one days from receipt were quite masters of the manipulations."

We have great pleasure in recommending your readers to try Watson's process, but in order for them to do so there is no need for them to pay twenty-five dollars for the instructions. We have asked your countrymen to pay us a large sum for our experience in the enamel process, but we have no objection to tell them all we learned from Mr. Watson's instructions, which we purchased without any reservations or promise of secrecy. Here are the instructions, word for word. If any of your readers can, after reading them, make enamels as good as those we sent to the National Photographie Association Exhibition we will relinquish our elaim to have made any improvements in the process.

Yours truly,

ROBINSON & CHERRILL.

Practical Details of Process for Producing Vitrified Photographic Enamels.

The Negative from which it is proposed to produce an enamel of the finest description should be clear, sharp, and full of detail; not too dense; in fact, a good negative. A transparent positive (so called) is required in the next place, which is made by the ordinary method of camera printing on wet collodion. Any good bromo-iodized collodion will serve. The nitrate bath must be in good condition; any trace of fog would be fatal to success. A small stop must be

used in the lens to insure sharp definition. The transparency is best developed with

 Pyrogallic Acid,
 .
 3 grains.

 Citric Acid,
 .
 .
 3 "

 Glacial Acetic Acid,
 .
 .
 20 drops.

 Water,
 .
 .
 1 ounce.

A full exposure is required, varying from one or two minutes to a quarter of an hour, according to the density of the negative, light, etc. The development proceeds slowly, and the transparency, when looked through, ought to exhibit fine gradations of tone, from deep rich blacks to transparent glass in the high-lights. Clear the pieture with cyanide in preference to hypo, and wash quickly and well.

When a very dense negative is to be worked from it is often advisable to substitute iron development for the hypo. For this purpose 10 grains of iron per ounce of water, with 10 minims of glacial acetic acid, may be used; but note that, as the development in this case is very much more rapid, it must be stopped by copious flooding with water as soon as the faintest indication of detail is observed in the face, etc., of the picture, which is now to be strengthened cautiously with a little of the pyro developer, to which a drop of silver solution has been added.

Removing the Transparency from the Glass is effected by first cleaning off with the finger the extreme edge of the collodion all round the picture, and then placing it in a dish of water, say half a pint, acidulated with twenty to thirty drops of sulphuric acid. In a few minutes the film, assisted by a gentle rocking motion of the dish, will loosen itself from the glass and float on the surface of the water.

Carefully lift the floating film on the glass from the acid bath, and wash it well by immersion in five or six successive changes of clear water, and proceed to

The Toning.—For this purpose iridium is used, as yielding the finest and deepest ceramic black known. Hitherto this metal has been of comparatively little value to the photographic enameller, as the precipitate obtained by toning with the chloride was found to yield only a poor grayish-black enamel. By the following method,

however, a fine rich black is most easily obtained.

Stock Solution, No. 1.

Cold Saturated Solution of Bichloride of Iridium and Potassium.

Stock Solution, No. 2.

Ordinary Chloride of Gold Solution, one grain to each drachm of water.

Toning Bath.

No. 1, Solution of Iridium, . . 6 drachms.
No. 2, Solution of Gold. . . 3 ''
Water, 6 ounces.

Immerse the picture, and allow the toning to proceed until the proof in the densest parts has lost its original gray tint, and the whole appears of one uniform color. Examine the back of the picture through the glass, and note whether it is toned right through in deep blacks.

When the toning is finished wash again in several changes of water, taking care to prevent the film from folding and creasing. With a little practice this is quite easy. Note that, in all operations, hasty and rapid movements are to be avoided.

After washing, immerse for a few moments in the following bath, which serves to remove the chloride of silver formed during toning, and which, if left in the image, would impart to it a greenish tinge not at all agreeable.

Water, . . . 8 ounces. Liquor Ammonia, . . 30 drops.

Then again wash very carefully in several changes of water.

If a fine black color is desired, the picture is now ready to be placed on the enamel tablet and burnt in; but if a warmer shade is desired, the picture is placed for two or three minutes in the following bath, observing not to allow it to remain at rest, but gently moving it to insure an equality of deposit.

Stock Solution, No. 1.

Pernitrate of Uranium, . 30 grains. Water, . . . 8 ounces.

Stock Solution, No. 2.

Red Prussiate of Potash, . 30 grains. Water, . . . 8 ounges.

To be kept in the dark.

Of each of these solutions half a drachm is taken and mixed with 10 ounces of water and 1 minim of chloride of gold solution, to form the bath. A short immersion is sufficient to produce an appreciable warmth in the finished enamel. If left too long in this bath the picture is much reduced in depth and, in comparison, is tame and feeble in its tones.

After this, wash again the proof and transfer it to the enamel tablet. These tablets can now be obtained, with all the necessary chemicals and furnace for burning in, etc., of Mr. J. J. Atkinson, Manchester Street, Liverpool.

To transfer the picture you have only to place it in a shallow dish of pure water, with the glass on which it was taken underneath it. Let the glass down to the bottom of the dish and slip the tablet between the film and glass, taking care that the collodion side of the picture is next the tablet. Now lift carefully the glass bearing the tablet, get the picture in its proper position on the tablet, and lift all out together gently taking care that there are no creases or air-bubbles formed underneath the picture; drain it, and dry smartly before a clear fire, in an inclined position, or over a spirit-tamp. When quite dry cut with a penknife the collodion film round the edge of the tablet, and remove from the glass; place it on a sheet of blotting-paper, somewhere free from dust, to await the finishing operation of burning in.

The part of the picture remaining on the glass may be utilized in a most excellent manner for retouching, should any be necessary, as follows: Dry it, and scrape it off the glass, and grind it up well with a little oil of lavender or spike, on a palette or a clean glass plate.

The Burning in of the Picture.—The muffle furnace having been charged with a mixture of coke and coal, and heated to a clear white heat, the picture is placed on a smill piece of fireclay and allowed to remain on the top of the furnace for some time, so as to begin gradually to scorch off as it were the collodion film. It is necessary to use great caution here, as, if the temperature is raised too rapidly, the collodion film is liable to burst up and destroy

the picture. The best way is to let it get thoroughly scorched brown all over before removing it, still resting on the piece of fire-clay, to the ledge in front of the mouth of the muffle; it is then to be introduced into the muffle by slow degrees, turning it around all the time with a stout piece of iron wire bent at the end, or by other means, and so complete the operation of burning off the collodion. When this is accomplished, and the whites of the picture appear clear, it is withdrawn gradually and placed on the furnace top to cool somewhat; and the rest of the enamels may then be treated in the same manner. After which they are placed in a suitable situation to become thoroughly cooled, when they are ready to be glazed.

If any spots, however, appear, they are to be retouched with the pigment before described, ground up with a little oil of lavender, and then placed again for a few seconds in the muffle, observing the same precautions in gradually introducing it and withdrawing it.

The Glazing is performed as follows: Take, say, one drachm of soft transparent enamel glaze, such as is used for glazing fine porcelain, mix it with a little water, and grind it well on a glass slab with a glass muller, let it dry, and then put it in a bottle with one drachm of alcohol; shake it up well, and allow the heavy particles to subside for a moment or two; pour off the top into a clean glass measure, and add to it one ounce of plain uniodized collodion, and shake well. This forms the glaze, which is applied to the picture in the same manner as coating a plate of glass with collodion. Have ready a piece of very bibulous paper, and apply it to that edge at which the superfluous collodion was poured off, so as to remove the thick edge of collodion that is otherwise formed.

Allow it to become quite dry; and your furnace being still at a white heat, introduce the picture as before when burning off the collodion, by slow degrees into the muffle, and when the glaze appears to be melted, the picture is withdrawn to cool as before. It frequently happens that this process of glazing has to be repeated three times or more, according to the density of

the blacks of the picture, which will otherwise retain their original dead, matt appearance, and will not be properly transparent. When, however, the picture is thoroughly glazed, the deepest blacks appear translucent, and the finished result is of the most beautiful description imaginable.

Herr Grüne's method of toning with platinum has been extensively used, and with very varying results; the proofs, however, obtained with platinum toning are not to be compared with those secured by the modified iridium toning bath in intensity and depth of coloring. It is remarkable that iridium, if used alone as a toning agent, is tardy in its action, and almost unmanageable, and only producing a poor result, and that gold toning alone forms a dirty reddish image, and when burnt, entirely deficient in half-tone; but when the two are combined in the proportions indicated, a most beautiful and intense black is formed. The toning bath possesses good keeping qualities, and may be used many times by simply adding a little of the iridium and gold solutions in the proper proportions.

Should the enamel, after glazing, require any retouching, it may be easily performed by taking some of the pigment previously described and grinding it along with a minute portion of the powder glaze or flux with oil of lavender, and then submitting it again to the action of the furnace until the retouching appears bright like the rest of the picture. In all the burnings it is recommended to examine the picture often until facility is acquired; as if the heat is great and too long continued the white enamel ground may begin to melt and flow, and destroy the picture.

A very little careful practice in this matter is sufficient, however, to insure proficiency.

Additional Particulars. — The double chloride of iridium and potassium, made by Johnson & Co., of Hatton Gardens, London, is meant to be used (it is found to be in small ruby crystals) in preference to the simple chloride of iridium, which is very deliquescent, and makes a muddy solution with water. The double chloride saturated solution is of a fine, rich, and clear

port wine color. Johnson's chloride of gold, sold in tubes, I like best.

When the picture tones of a gray color, and seems somewhat faded, it is an indication that iridium is present in excess, and if such a picture were burnt in it would be very dense, and black, and heavy-looking. Remedy, a little water and chloride of gold. When, after burning, the picture is feeble and of a dirty reddish tone, there has been excess of gold in the toning bath. In this condition the bath soon decomposes, and the gold is reduced in a state of red powder, remaining in suspension in the liquid, and attaching itself to the high-lights of the picture and staining them; in this state it is quite useless, and cannot be renovated.

The writer has used the following method of obtaining warmer tones, with great success, in lieu of the pernitrate of uranium bath, or as an addition to it:

Stock Solution.

Perchloride of Iron, . . 1 drachm. Water, . . . 8 ounces.

Used the same as uranium bath: ½ drachm of iron solution, 10 ounces of water, and ½ drachm of red prussiate of potash solution.

In this bath a deposit of blue prussiate of iron is soon formed on the picture, yielding an agreeable brown-black after burning. Or the iron solution and uranium may be used, together with the red prussiate.

The tablets may be obtained of Mr. Atkinson, of Liverpool, but if desired, direct of the manufacturer. J. H. Robinson & Co., Mersey Enamel Works, Grafton Street, Liverpool, supply mine, which I find very good; also Stow, of Foster Lane, London. The furnaces are made by Doulton & Co., Lambeth potterers, Lambeth, London. No.1, suitable for small pietures, costs about £2; No. 4 costs, I believe, £4 4s. These they call their Muffle Furnaces, and are portable, may stand near some chimney, and have an iron stove-pipe fitted on and into the same.

The glaze for the pictures is now obtained finely ground, and is best used as follows:

Take, say, an ounce of plain collodion, thin it by the addition of half an ounce of alcohol and half an ounce or more of ether, and put into it about a teaspoonful of the glazing powder; shake it up, and allow it to subside a moment before using.

NEW SYSTEM OF LIGHTING.

BY C. E. MYERS.

HAVING offered, at the Chicago Convention, to give any member, upon application, a free license under my patent to make and use the Universal Hand-screen or Concave Reflector exhibited there, I trust that it will be believed that I have no special axe to grind when I ask for space to comment further on what may be termed the New System of Lighting.

While investigating the subject among the fraternity, I discovered that only the more intelligent and experienced ones were familiar with the use of adjustable screens or reflectors for any other purpose than as slight "modifiers" of light, most of them never having tried any specially adapted apparatus or seen it tried. This being the case, the remarks I shall here make may be regarded by some as revelations, while others, familiar with the subject, will recognize only facts in correspondence with their daily experience.

My experiments in this direction have been so extensive that my results may be considered as authoritatively stated, until contradicted by some one whose equal experience renders his opinions entitled to equal respect.

In connection with this article reference is made to my paper read at the Chicago Convention, which may be considered as prefatory to this, and as being the root of the New System of Lighting.

For simplicity it will be understood, in this connection, that the subject to be lighted is a human head or bust, and the light as striking it from one direction only. This may be direct sunshine, or it may be a top-light, or a top and north side-light, or any other form of opening, the light being always an "open light," and the centre of the opening the centre of the light. The subject is placed at the point of strongest illumination of the face, and a screen is interposed between it and the opening admitting light. A yard square translucent screen thus placed softens the

light. If near, the lighting is flat; if further removed, the effect is lessened, and at the distance of a few feet it is practically without effect. Its office is to soften the light, not to govern it, and for this latter purpose other appliances are necessary in connection with it or without it. Its proper position is between the subject and the point where the strongest light enters. As regarding effect, its angle is immaterial. A horizontal or a permanently inclined screen, attached to a common head-rest so as to be adjustable for height or revolution about its standard, is the limit of effect.

This is the beginning of the screen theory of lighting.

If instead of the ordinary translucent screen (recognized always as the white or blue screen) we use a semi-opaque material of some non-actinic color, approximating to the color of freckles, tan or skin blemishes, such as pale red or pink, light yellow or pale orange, or very light brown, the effect of the screen is immediately visible in the lessened necessity for retouching to remove skin defects, the skin having been lighted all one color. The prolongation of exposure is much less than might be expected before trial, for the darker and lighter parts each get their proper share in gradation instead of the whiter parts stealing the free silver, as is ordinarily the case while developing. The softening effect is also visible, as with the white screen, but less in degree, requiring us to place it further from the sitter and out of the camera's view, the exposure being consequently still less prolonged. This peculiarity marks the distinctive and opposite characteristics of the translucent and semi-opaque screens.

With the first, softness is produced, even to the extent of flatness, by putting it close to the subject. With the second the shadows are stronger if the screen is placed very close, and it has to be removed to soften effects, the proper distance being a matter of experiment, and when tried it is found that, unlike the white screen, the angle or position has a marked effect on the particular lighting of the subject, rendering perfection of adjustment absolutely essential for the desirable effect. These experiments are best verified with the common hand-

screen, and it will be found that the usual conglomeration of curtains, shutters, and sliding-screens, over the top-light, may be entirely dispensed with for the *mere lighting of the sitter*, thus saving expense, time in adjustment, and shortening the exposure still more.

With a universally adjustable opaque screen the lighting effect is more marked, and the control of the light is as complete as it is possible to contrive with any form of curtains. Try it on a large doll with a palmleaf fan.

If the colored screen is used it will be found effective in lessening retouching only on that side of the face exposed to it, leaving the darker side of the face wofully in contrast. The remedy is a reflector. A plain white reflector improves matters by lighting the darker side, but a white patch in the near eye is nearly always an accompaniment. If a colored reflector is used this side of the face is manifestly improved as regards retouching, but remains too dark for pleasant contrast or satisfactory gradation. The remedy is to concave the surface of the reflector exposed to the sitter. The light is then concentrated to such an extent as to occasionally seem to reverse the former lighting of the face. This excessive effect is remedied by moving the reflector further The patch in the eye disappears away. when the concave reflector is swung so as to light only that part of the face below and back of the eye, and the darker parts of the hair and neck, leaving the direct light to illumine the eyes. The effect is always less on the plate than it appears to the artist's eyes, as the light is colored, and the reflection of a colored concave surface in the eyes, even when fully fronting it, is so insignificant as to be practically ineffective. If this reflector is not sustained and wielded by the hand it must be attached to some support permitting complete adjustment, as perfect accuracy of position is more decidedly essential in the reflector than in the screen itself.

Since reliable lighting appliances have assumed the importance they have, and in view of the almost entire lack of information on this subject, I have thought it expedient to give these concise results of mis-

cellaneous and detailed experimental experience.

If called upon I shall be glad to give my theory of proper skylight construction, combining cheapness, utmost amount of light through given apertures, immunity from difficulties incident to direct sunshine entering, and entire relief from all leaking. I will add here that I work a north light covered with clear glass, open all the year round.

HORNELLSVILLE, N. Y.

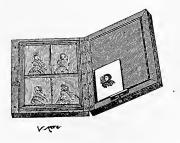
VIEWS ABROAD AND ACROSS.

BY EDWARD L. WILSON.

XI.

THE year is drawing to a close, and I must hasten on, for these narratives will become tiresome by the time the New Year reaches us, I am sure, and you will then look for something fresh, so let us finish up Paris quickly, then spend awhile in London, and there end our views.

Paris alone has much to attract the photographic student-much more than I found I could attend to. Here some of the most eminent men the art has known have resided and do yet reside; men who patiently and pluckily plod away over an idea until they work out some practical result for the benefit of the fraternity at large. One of these is our friend M. Liebert, to whose work I alluded in my last. He has had the benefit-for such he is willing to admit it was-of a residence in America, and therefore we feel more interest in him. I will mention one or two more of his devices, and to him I am also indebted for drawings of them.



The first of these is an elastic frame specially adapted for the printing of positives on opal glass. This frame, owing to its construction, allows the following of the progress of the impression without disturbing the negative, which is kept in its frame against the plate, by means of a spring; on the other hand, when it is desirable not to cut a negative on which are several images, a piece of sheet-iron, rather thinner than the opal glass, is fitted to the frame. Of this plate a corner is removed of the size of the positive print, which is thus rigidly held by the spring shown in the figure. The lower part of this frame being elastic, the image is always in perfect contact with the negative by the pressure of the spring.

The contact should be very rigid to obtain the half-tones; because, besides losing a great deal of its intensity in the toning and fixing baths, the image seen by transparency through the opaline medium never has the same vigor as when seen directly by reflection. Of course we have a great many devices for printing such pictures, but this one struck me as very useful also.

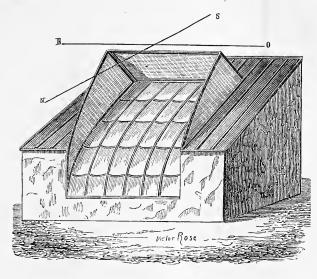
In France they do not have as much sunshine as we, therefore the construction of the skylight has had even more attention there than we give it. Every device is employed for securing a proper light, and a proper quantity of it, and for avoiding anything that may obstruct it. We all know how many skylights are obscured by an accumulation of dirt and dust and rain on the outside. I have known of several cases where photographers have complained that their lights continued to work slower and slower, when had they but looked upon the outside the guilty cause would have been very apparent.

But, in a measure, to avoid that labor, the French use the plan made plain by the figure annexed. It is not without several advantages.

It is similar to the ordinary construction, differing, however, in form. The sash is curved. The advantage of this arrangement is alluded to above, and to do away with the beam which absorbs the freest and most actinic part of the light, since it strikes the sitter at precisely an angle of 45°. The other part of the roof may be sloping both ways, the proportions of the atelier and the glass sash remaining as ordinarily.

At each end of the glass atelier a space may be set off of about ten feet length on

the contrary, to the south in southern latitudes. Use a gray-blue cloth background,



which is about six feet wide by seven feet high. In travelling, it is rolled around the supporting pole; the top and the sides, forming curtains, are made of thin stuff, and held by rings to the rods of the framework, which are taken apart with great ease, to be packed into a very small compass.

In this portable atelier excellent portraits may be obtained, and the time of posing one-half less than in a glasshouse. The professional photographer and the amateur will be hence-

forth able to work with advantage in the open air, and obtain very fine negatives of portraits and landscapes, with a baggage relatively light and easy of transportation.

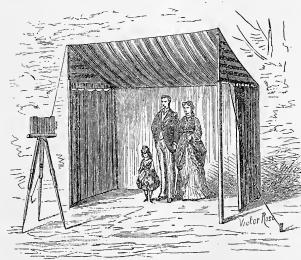
And while upon the subject of skylights, I must not forget to add M. Liebert's method of shortening the time of the exposure of the plate in the camera for portraits.

It has before been broached in these pages, but has not received the attention that it really should, so I trust you will bear with me if I bring it to your mind again. It consists in supplying the lens with a shutter of porcelain glass, through which a preliminary exposure of the plate is made. But I will describe the whole operation.

Each one of the objectives used in the atelier should be furnished with a stop, whose brass periphery should be lined with cloth in the inside,

the whole width of the room, to be used as a laboratory and dressing-room. The room will thus have a total length of eighteen metres, or about twenty-three feet.

For the portrait photographer who is sometimes obliged to accommodate the sitter who cannot come to his atelier, the annexed cut of a tent, forming a posing-room,



will be found useful. north in northern latitudes, and turned, on to the objective, and that it may be re-

The front faces the | in order that it may adjust itself perfectly

moved without effort; in the centre of this stop a hole is made, equal at least to the half of the diameter of the front lens; this opening is closed by an opal glass, whose ground side should face the lens, and on the front of this stop is fixed a shade of blackened sheet-iron, similar to that which is placed on all the doublets objectives of Mr. Ross. This shade, which moves by means of a hinge fixed to the upper portion of it, allows the lens to be covered or uncovered at will, without disturbing the stop. This arrangement allows the use, with the same advantage, of holders with shutters or with a slide.

To operate with this instrument, this is the manner of proceeding:

When the sitter is suitably posed and sustained by the head-rest, bring to a focus upon the ground-glass, as is customary; the objective is then covered with the stop, which is furnished with the opal glass, and re-covered with the shade; the ground-glass is replaced by the frame containing the sensitized plate.

The shade is then raised for an interval of time, which may vary from one to five seconds, according to the intensity of the light, and especially according to the length of the focus of the objective; then the lenses are unmasked by quickly removing the stop, which is replaced as soon as the pose is finished.

We see that by this process nothing is changed in the ordinary operations, which may be made so rapidly that the sitter not only feels no fatigue but is not even aware of its use. The chances of a successful result are increased, for, as we have stated, there is a reduction of at least one-third in the time of sitting.

The pose could be reduced still further if, after the exposure, and before the development, the plate were dipped in a sensitizing silver bath.

As we have already said, the preliminary exposure of the sensitive film can vary in proportion to the more or less intensity of the light at the time of operating, and especially in proportion to the focal length of the objective used, for it is easy to understand that the diffused light, penetrating into the objective through an opal glass,

will act on the sensitive film strongly and rapidly, in proportion as the space to be traversed is less.

The sensibility will be increased by a longer exposure to the light, but nevertheless without excess, for in that case the negative would be completely fogged.

A few trials will suffice to make one familiar with this new mode of operating, and with the exact time to be given to the preliminary exposure. It is safe for me to advise the use of it under all circumstances where rapidity is necessary to insure success.

It is very important that the exposure of the sitter should *immediately follow* the preliminary exposure, otherwise the rapidity would be lessened.

For the reasons given above, opticians would do well to adopt this new kind of stop for all the portrait objectives they may have to make, as I am well convinced that this mode of operating will soon be universally adopted.

Of course no one interested in photographic progress would leave Paris without a visit to the card-mount manufactory of Mons. D. Hutinet, for it is well worthy of it, and many beautiful things are to be seen there. It is an immense establishment, and there the production of photographic mounts is seen in all its stages, from the pasting together of the several sheets which make up the stiff card, to the calendering betwixt monstrous rollers, and the cutting of the round corners by the delicately constructed and ingenious machine. This latter is the pet machine of the establishment, and works most beautifully, the results being as perfect as perfect could be. In printing in all sorts of designs and in delicate colors M. Hutinet excels, and he and his former partners were undoubtedly the first to make advance in this direction. It was not many years ago when the variety of card-mounts obtainable in this country was very meagre. The French ones were then scattered all over the country, and our own excellent manufacturers met the demand, until now there is no end to the variety. Yet we must admit there is a delicacy and a finish-a Frenchy something about those made by M. Hutinet, which we have yet to reach. He prides himself particularly on the purity of his stock.

Not long ago there was a good deal of excitement in Germany and France among photographers, because of the frequent spotting of their prints, and the whole censure was placed upon the eard-mounts. This caused M. Hutinet to speak before the Photographic Society in Paris, on the subject, and I will quote part of his interesting remarks:

He alluded first to a letter of M. de Constant Delessert, stating the existence in Germany and in England of the kind of photographic epidemic alluded to, which manifests itself by yellow spots on the prints. In this letter M. Constant thus expresses himself: "I have never had this accident happen to me in my work-rooms, but my successor, in another building, is very much troubled."

"We now come," says M. Hutinet, "to the result of an experiment made by me. A photographer at Montereau having informed me that the same accidents showed themselves in his establishment, sent me at the same time some boards upon which no prints had been pasted; I pasted upon these boards prints which had been rapidly dried, then each of these boards was cut in two and one half sent to Montereau; at the end of fifteen days they were returned to me full of spots; the other portions of the same cards, which I retained, suffered no change.

"Two halves of the same card were given to the Society in proof of my experi-

"I have remarked that the prints coming from Montereau were not only spotted, but that the Bristol itself had undergone a change; it had become yellow, whilst that of the prints kept by me remained white and smooth.

"To what cause are we to attribute this change in the two halves of the same print pasted on the same card?

"It seems to me that a local cause should be duly considered, which is also the opinion of M. de Constant.

"Is it the dampness of the air or emanations peculiar to the spot in which the photographer has his work-rooms? I leave that question to be decided by the chemists; but it is clear to me that the cause cannot be attributed to the Bristol or the albumenized paper.

"I would add, that according to Mr. Disderi, the accident is produced when the prints have not been sufficiently fixed in the hyposulphite, or when this latter is too strong and not dissolved."

But I must go on; and our next visit will be to the manufactory of the photographic lenses, so well known in Paris, of which M. Hermagis, the distinguished experimenter and optician, is the chief. Here I had a most interesting visit. Do you know what a trouble it is to make a good photographic lens? You do know what a trouble it is to procure a good one. When I visited M. Salomon, as most photographers do when they visit the studio of another, I looked all about, praised and admired his splendid results, their sharpness, their magnificent details, and yet their lovely softness, and then I turned my head away a moment and assumed a very grave countenance, so as to be sure I wouldn't laugh. And turning again to the great master, I said in the best English I could, Aw! beg pawdon, M. Salomon, these are lovely effects of yours. Aw! what lens do you use? and he answered, "Hermagis's!" Straight from there on the same day I went to M. Hermagis's works, where, as I said, lenses are to be seen in all the stages of production, from ingots of brass and bricks of glass to the splendid finished and tested lenses to be found in his wareroom. Here were men grinding, and polishing, and turning, and testing, and adjusting, and finishing, and fitting, and rubbing; a perfect sight. But as I shall take you to see all these optical effects when we go to London next month, I will leave you now without further light as to how your lenses are made. M. Hermagis is most careful and exact in testing his lenses personally, and guarantees every one. Of course you already suspect me of being interested, because our good publishers are agents for M. Hermagis in this country. Well, then, next month I will describe a factory I am not interested in, and say more about it than in all decency I should want to say here. But do try M. Hermagis's lenses. They are good. It is not expected to sell many here with the vivacious Voigtlander, the dreadful Dallmeyer, and the rambling Ross in the field; but enough about it now, let us go on.

I visited the works of M. Goupil & Co., at Asniers, where is one of the finest photoprinting places in existence. Photo-lithography, photo-engraving, the carbon, Woodbury, and silver printing processes are all largely employed in the reproduction of works of art and for commercial purposes only. M. Rousselon is the manager, and a most practical photographer I found him to be. I wish I had space to say a great deal more about him. Perhaps another time I can.

The paintings are copied in the open air on terraces by the Scine-a most admirable position for the purpose, the place being so advantageously situated for light, etc. They print a good deal on albumenized paper, but not nearly so much as by the Woodbury process—one so well known as only to need mentioning. They produce pictures for illuminated windows, using glass positives of the size of 8 x 10, and they are making copper plates for printing by means of a lead impression taken from the gelatin matrix, which is subsequently coppered by the galvanic battery. M. Rousselon has succeeded, after many experiments, in giving a graining to the gelatin, which is subsequently taken up by the lead and the copper-plate, and whereby a grand appearance is given to the picture.

An electro-magnetic apparatus of an extraordinary size, which is driven by a steamengine, furnishes the electric light for enlarging. It is so strong that for enlargements of the size of a single sheet of paper an exposure of ten minutes suffices. It is proposed to erect a new hydraulic press capable of putting on an enormous pressure on a surface, and which is to be used for printing by the Woodbury process from larger lead matrices than the 10 x 8, which is hitherto the largest which has been attained. But good-bye, M. Rousselon!

Each day now is a drive, for my days are numbered, and I soon must journey to London and then home. Oh, Paris, to be here and have to hurry so! Of course I went to the Louvre and the Luxembourg and other art palaces, and feasted and gobbled

up and took in, until I began to feel a sort of esthetic dyspepsia, and I have had it ever since. I hope I will never get over it. I am only afraid my friends will get tired and worn out and have sleepless nights hearing me talk about it, so in my "Lantern Journeys" for magic lantern lovers I have "let out" a great deal more than I dare here. They tell a great deal of what I saw.

I went to Notre Dame, the Pantheon, St. Stephen's, the Madeleine, out the Champs Elysées, not forgetting Versailles, often to the bloody Place de la Concorde, to the sad Morgue, up and down the Seine and across the bridges, and oh! where did not my good friend Levy and others take me? You who have stereoscopic pictures and lantern slides of all these grand places, read the "Lantern Journeys." You who haven't them, pray get them now.

My friend, and our correspondent, Mons. Lacan, came in for his share of attention and consideration, and as you know, the result was his engagement as correspondent for your good. M. Davanne I found busy as usual in his splendid apartments experimenting and studying. I must say I was greatly disappointed with the studios of Paris. Mons. Lacan has told you about the most important ones. They are very far behind our art palaces, and as to their work-well, many a one here can equal and excel the most of it. As to the inventions of M. Puttemans and Lambert, which were creating an excitement when I was there, Mons. Lacan has told you, and has more in reserve. And now we must leave Paris. For several days three things have been occupying my mind constantly. Murillo's grandly sublime painting of "The Immaculate Conception." It sprung upon me when I was not expecting it. I was reading the catalogue, and looking up saw that sublime picture. I fairly jumped, almost frightened. There stood the noble figure of the Virgin, the wondrously sweet influence of that wondrously sweet face pervading the atmosphere for a wide distance. Oh, how sublime! "And there appeared a great wonder in heaven; a woman clothed with the sun and the moon under her feet, and upon her head a crown of twelve stars." Rev. 12:1. Murillo doubtless had this text

in mind when he painted this great picture of his life, and which cost \$125,000.



The other thought was of my poor friend who might be waiting for me over the Straits of Dover, standing upon the highest rocks there in a drenching rain, under his best umbrella, singing, I know, "Come! you have but ten days to stay

Under his best umbrella.

in London; it is a huge place, and you must hurry!'' Ah! and the third thought was that I must cross that abominable North Channel to get home. Oh! horrible!

GERMAN CORRESPONDENCE.

Application of Photography to Industrial Purposes—Talbot Sensitized Paper—Hearn's Practical Printer—Reproducing Negatives —Stylish Backgrounds—Cellular Structure of the Collodion—Photographic Exhibitions in Vienna and Berlin.

THE more photography progresses, the more does its application extend through all the branches of industry, and it begins already to become the universal art, which is practiced not only by the practical photographer but by all who are necessitated to have pictorial illustrations, be they architects, machinists, engineers, miners, iron founders, zinc casters, printers, or dyers. Many photographers consider this general spread of the application of photography a misfortune; they fear that if every one knows how to photograph, their services will not be required any longer, and their business will retrograde. Such views are not only narrow-minded but also unfounded. Music also is an art which has become universal. In Germany nearly every child of well-to-do parents learns to play on some instrument, still this has not made the professional musician superfluous; on the contrary the general practice of music makes him the more indispensable, forces him to greater exertions, gives him employment as teacher, and in spite of all the home music our public concerts are overcrowded. The photographer need not fear that his art may become too popular.

The application of photography to art, science, and the industrial pursuits would perhaps have spread more rapidly if its practice did not require so much care and eause so much dirt. I know plenty of amateurs who have a good many opportunities for practicing photography and still do not use them, because the preliminaries, such as building tents, filtering the bath, cleaning plates, etc., gives them too much trouble. In this respect every invention which lessens this work is of great interest, and before photography will be practiced universally, two things will have to be invented-the one is an absolutely reliable dry plate, the other a permanent sensitive paper. Both these requisites should be for sale at moderate prices. Dry plates can be bought in England, but their reliability is still in doubt. I have tried several dozen of Wortley plates, and have always been successful. The permanent sensitive paper has for years been an article of commerce here in Berlin. It is consumed in enormous quantities by machinists, architects, draughtsmen, etc., who copy drawings with it. It is the same process which is worked by Mr. Walker in Washington. The drawing is placed in the printing-frame, the sensitized paper on top of it, and the negative copy so obtained is not toned but simply fixed and washed. The process is as old as photography itself, but its general practice dates from the time when Talbot here commenced to manufacture his permanent paper for the trade, for the engineers do not like to take the trouble of sensitizing their own paper. Talbot makes his paper by floating the sensitized sheets on a solution of a salt of tartaric acid. There are many formulæ for making such paper; I myself have tried several, and all with good result, but I have never obtained a paper which was as permanent as that of Talbot, for it remained in my dark-room white for eight months in spite of the influences of air and dampness. This, however, is not only dependent on the formula but also on a skilful manipulation. Talbot's paper is less suited for photographic purposes, as it tones poorly.

I see that Mr. Hearn, in his excellent work, "The Practical Printer," a book which contains an abundance of interesting matter, treats this subject also. I fully appreciate the thoroughness with which Mr. Hearn treats everything of interest for the printer. In a future edition of this beautiful book probably a new chapter will find place. I mean on reproducing negatives, for the new method of reproducing negatives is in fact a printing process, although with development. We cannot be too thankful to Mr. Obernetter for his publication of this process, which in fact is so easy and simple that every photographer succeeds with it after a few trials, and I feel convinced that in two years it will be practiced in every atelier of any importance. The ordinary materials, dextrin, chromate of potash, and grape-sugar, can be bought almost anywhere, but of great importance is a very fine plumbago. We get ours from Nuremberg. Recently I received a sample of excellent plumbago from Mr. Bierstadt, in New York, which appears still more intense than the Nuremberg, and my first plates made with it were too dense. A few trials teach us how to use it. It is to be regretted that this method of reproducing negatives was not known earlier, for it would have saved many a valuable plate, as for instance my valuable Aden plates, all of which were lost.

Before the French Photographic Society Mr. Geymet claims that he has practiced this process eighteen months earlier than Mr. Obernetter. This is in so far wrong, as Obernetter made "Lichtdruck prints" as far back as 1870 from negatives reproduced in this manner. The dust process is not new, neither Obernetter nor Geymet have invented it, but the main point is, that Woodbury, who worked after the formula published by Geymet, did not succeed, while he was perfectly successful with Obernetter's method.

Bierstadt, in New York, has sent to me a formula which differs somewhat from Obernetter's. I tried it and it works splendidly. It is as follows:

You will notice that no glycerin is used with this formula, which is surprising, as I thought it indispensable for the dry climate of New York. Further experiments must explain the action of the glycerin.

All the world complains about the difficulty of getting an artistic background. Plenty of backgrounds can be bought, but they are all too stylish, and rather suited to spoil the picture than to embellish it. Formerly the photographers got their backgrounds painted by scene-painters, but these were often very picturesque and not always useful for photographic purposes, either too light or too dark in tone-in short something was always wanting. Læscher & Petsch paint their own backgrounds, and possess in Mr. Hartman an artist who thoroughly understands his business. All the other photographers are in a bad fix, as lately the scenepainters refuse to work for them. In many instances, backgrounds have been returned to them as useless, and this has induced them to refuse further orders.

Brothers Tæschler, in Switzerland, have now adopted a new method of making backgrounds. They place the figure in front of a monotonous background and paint the accessories, which appear to them suitable, on the negative. They coat the back of the negative with a dull varnish and make on it the drawing with lead-pencil. It consists of very simple objects, such as a wall, a few trees; the effect is surprising, but it requires of course an artist.

In view of this absence of artistically beautiful backgrounds, it is advisable to use in their place wall-paper. Beautiful wallpapers are at present in the market, particularly cloth-paper with panel and frieze. Their artistic effect is very striking and their photographic action is good. Colors, which appear too light or too dark, may readily be modified by either painting them with yellow other or with white. Our photographers here have employed these papers already very successfully.

We hear frequent complaints that the collodion of commerce shows so-called cellular structure. The plates look after development as if covered with a fine network, which under certain conditions makes the whole plate useless. I have examined a

great many samples, and found this fault almost in every one of them. Very often it is not to be noticed with the naked eye, but with a magnifier of about one inch focus it is easily noticed. American collodions do not show this fault as much as the European ones. It manifests itself particularly in summer-time, and with fresh collodion more frequently than with an old one.

I have noticed it often and in the highest degree with newly iodized collodion. Four weeks later not a trace of it could be noticed, and the plates were perfectly smooth. The probable reason is that collodion is now generally prepared at a lower temperature than formerly; this makes a thicker collodion, more sensitive, but also less smooth. Mr. Quidde remarks that this cellular structure is more frequent when the plates are warmer than the collodion which is poured on. He keeps his plates in summer-time in a very cool place. Mr. Primm states that with careful manipulation in pouring on the collodion this evil may be avoided. Certain it is, that diluting the collodion will avoid it.

Next year we will probably have two photographic exhibitions in Germany and Austria. The Vienna Photographic Society has planned one for April and May, and we contemplate to hold one later. Those who exhibit in Vienna have the advantage of exhibiting their pictures twice. We have not had a photographic exhibition in Berlin for the last ten years. The progress which has been made since then is grand, and our city possesses a population that knows how to appreciate it. In my next letter I hope to be able to give you further particulars. We shall be very glad to see American photography well represented here.

Yours truly,

DR. H. VOGEL.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

PHOTOMICROGRAPHY, or, in other words, the photographic reproduction of objects as they appear when enlarged by the microscope, is one of the most useful applications of the new art to science and education. It not only furnishes documents to the

studies, so uncertain up to the present time, of the tissues, of the crystals, and of the mysterious world of the infinitely small, but besides it places under the eyes of students, in the courses of histology, botany, zoology, anatomy, etc., etc., images with which they can follow, in the most complete manner, the lessons of the professor. In France, at the present time, there is not a single course or scientific lecture in which these marvellous enlargements are not usefully employed. The large white screen, upon which they are projected by means of electric light, as was formerly done with the pictures of the magic lantern, to the great amusement of children, forms, to-day, as important a part of school furniture as the mathematician's blackboard. A master in this line is Mr. Jules Girard, to whom we are indebted, by the way, for a work, having for title, the "Camera and the Mieroscope." On the occasion of a presentation, just made by him to the Academy of Sciences, of several microscopic pictures, representing crystallizations of sal ammonia and of bichromate of potash, Mr. Girard gave some new explanations concerning his manner of operating. made use of an apparatus composed of a metallic slide fixed to a support which carries the camera. This horizontal slide comprises several instruments mounted upon a support which, by means of a screw, are removed more or less one from the other, and, at the same time, from the camera. They consist of an objective, of one centimetre (3 inch) diameter, so combined as to give an enlargement varying between eight and twelve diameters; a spring-pincers serving to hold in a fixed position the small plates of glass on which are caused to crystallize the salts which are to be reproduced. There is besides a plate of blue glass, which gives a monochromatic light favorable to photographic impression; and finally, a movable plane mirror, to reflect the solar light in the axis of the whole system.

The time of exposure necessary for this kind of picture varies from instantaneous to two or three minutes, according to the transparency of the crystals. To obtain a great relief, showing in a more complete

manner the salient portions of the crystals, oblique light is made use of by slightly displacing the mirror from its axis.

The crystals to be reproduced are prepared by spreading a coat of their solution on a small glass plate; it is necessary that this glass plate should be perfectly level, in order that, after desiccation, the crystals should all have the same thickness. It is best to prepare solutions more or less concentrated, so as to select from the number those that present a definite character for reproduction.

A communication of another kind was also made to the Academy of Sciences by one of the men who have the most contributed to the earliest developments of photography, Mr. Edmund Becquerel. I allude to an article concerning the action of different refrangible rays upon iodide and bromide of silver. Without pretending to a complete analyzation of this communication, which is of very considerable scope, I believe it useful to indicate the principal points.

When the iodide of silver is prepared, according to Daguerre's process, on a silver plate and exposed to the action of the solar spectrum, without having first been impressioned by light, it is only sensitive from the blue to the extremity of the ultra violet; but if it has undergone a previous exposure it is sensitive, not only between the preceding limits, but it also becomes impressionable between the red and the blue. If the iodide of silver is obtained by double precipitation, and fixed on paper or incorporated with the collodion or the gelatin, the observed effects may be different, according to the conditions in which it is found at the time of the luminous action. Precipitated, insolated, and pure, we know that it is very nearly inactive; fixed upon paper, and in presence of an excess of nitrate of silver, it comes to the aid of the decomposing action of light, becomes very sensitive, and, without the use of a developer, it can still present the effects of continuation, after a previous insolation and two maxima of action, one in the scale, the other in the blue violet. Bromide and chloride of silver act in the same manner.

The iodide of silver incorporated with

the collodion and forming the ordinary photographic coating, exposed wet to the action of the solar spectrum, then treated with sulphate of iron or pyrogallic acid, is impressionable to a lesser degree. But with dry collodion it is possible to obtain the same effects as with the plates and the papers, and after a first insolation to obtain an impression of the least refrangible rays of the solar spectrum. Mr. Edmund Becquerel cites several experiments which confirm those that Dr. Vogel has published, on the influence exercised upon the sensibility of iodide of silver by certain coloring substances, such as coralline, aniline green, etc., mixed with the collodion.

The action of the spectrum, on the wet or dry collodion, prepared with iodide or bromide of silver and mixed with chlorophyll, gives an image more extended than with the collodion alone. The conclusion of the article of Mr. Edmund Becquerel is as follows: The action of a coloring substance in a very thin coat, which envelops a body chemically impressionable, shows that, perhaps, substances previously insolated, as the iodide, bromide, and chloride of silver, become sensitive to the action of the least refrangible rays, only by a change in the coloration or in the condition of their surface, the absorbing power of this surface for the different rays of the spectrum being then changed. The effects of the continuing rays are thus explained.

I have just been shown, and the inventor intends shortly to introduce in America, after having made arrangements for the sale in France, a very ingenious apparatus which appears to me to realize the type, so long sought for, of the apparatus used by excursionists. Imagine a box not exceeding the dimension of a big volume in quarto, and weighing, certainly, much less. In it all the baggage of the operatorcamera, frames, negative, ground-glass, plates prepared with dry collodion-finds its place. A cane of ordinary shape and dimensions completes it. The camera is of a novel construction, to my knowledge, and entirely original. It consists of two frames of light wood, one serving to form the bottom of the apparatus and to receive the plate frame, the other, smaller, on which is

fixed the objective; a kind of bag, made of green or black silk, forms the body of the camera. Previous to operating it is stretched by means of two planehets, one placed above, the other beneath, in the direction of the length, and which, uniting the two frames, give rigidity to the whole. In this condition the camera has exactly the appearance of a hand stereoscope having but one lens.



The upper planchet, forming one of the great sides of the camera, carries a little instrument performing the function of a plumb, which allows the apparatus to be placed exaetly level. The upper planchet has in the centre a thread which receives the screw of the stand; this is composed of

two wooden disks placed one over the other and surrounding a ball, also of wood, carrying the screw in question. This ball is rendered movable or immovable, according as the upper disk is screwed or unscrewed; the lower disk is pierced with three holes, in which are fixed the three tubes which form the cane, and, at the same time, the stand of the apparatus.

The length of the camera is calculated so that the image is always in focus for objects placed at more than 25 metres (27 yards). Nearer objects are focussed by moving the tube of the objective. The frames, which are not more than 12 millimetres (½ inch) thick, can hold two plates, placed back to back and separated by a piece of opaque black paper; the shutters are made of pasteboard, so that it is possible to carry a considerable number of these filled frames without increasing the weight of the baggage much over that of the plates:

The prints obtained with this apparatus are 18 centimetres (7 inches) by 13 centimetres (5 inches). Stereoscopic views may

be taken by placing in the camera a special separation and by moving the objective, which is adjusted on a movable planchet.

I was struck with the simplicity and convenience of this new apparatus, due to a Belgian amateur, Dr. Candez, who has called it the Scenegraph. I am sure it will obtain great success, for it satisfies all the exigencies of travelling photographers.

There is in Paris, at the point of the island on which stands the old church of Notre Dame, a dismal building called the Morgue. It is there where are deposited the remains of all persons who have died an accidental death on the public way, and whose names and residences are unknown. These mortal remains are placed on stone tables and exposed to public view to be identified if possible. It often happens that they are not claimed and, putrefaction taking place, they have to be hastily buried. It is easy to understand that, under these circumstances, disappearances occur which remain always inexplicable by the families of the deceased. The administration has at length taken a measure which should have been in vogue a long time ago, namely, to photograph all the bodies brought to the Morgue, and to preserve the prints, to be placed at the disposition of every person who might have occasion to consult them. Now that the police department has resolved to take a description of the dead, it should put into practice the project proposed some time back by an inspector general of prisons, which consists in taking a portrait of all criminals, to be added to the court record; this system would certainly do away with many researches and many errors, for, of the number of crimes daily committed, it may be said that a large majority is the work of liberated or escaped criminals. Besides, this would be a curious collection, to be consulted by physiologists, physiognomists, and moralists.

 $\label{eq:mr.hearn's} \begin{tabular}{ll} Mr. \ Hearn's $\mathit{Practical Printer}$ seems to please \\ everybody. & Mr. \ J. \ P. \ Watt says of it: \\ \end{tabular}$

[&]quot;I have received the *Practical Printer*, and have read it with a great deal of pleasure and interest. I consider it is the best \$2.50 worth I have invested in this year, and so far in 1874 I have invested \$17.75 in works on photography."

DR. VOGEL'S HANDBOOK OF PHOTOGRAPHY.

SECOND EDITION.

THE issue of this work has been delayed for reasons beyond our control. It required a great deal more of our personal attention and supervision than our already much-occupied time would allow, and we were compelled to work upon it only "between times," and thus it has been delayed. It is now almost complete, however, and those "hungry" for it may begin to send in their orders in a very few days. It is almost like a new work, being revised and considerably enlarged, so as to make it, because the latest, the best work in photography in general and in detail, that there is. Many interesting chapters have been added of great value, yet the price will remain the same as the old edition-\$3.50.

We make a brief extract from the new matter on a subject, at present quite interesting, to reassure our readers that the talented author has lost none of his practical, incisive manner of treating his subject:

" Gelatinizing of Photographs and Enamel Pictures .- For this, two warming-bottles, made of tin plate, which have the shape of a right-angled box, are requisite (one of 12" square, and $2\frac{1}{2}$ " in height, the other of 9" × 3" square also 21" height) having on one end a small tube for filling. The large one is used to heat the collodionized plate previously to using the smaller one as a warm support while gelatinizing. The purpose of these bottles is to keep the prepared collodion plates slightly warm until ready for the operation, to prevent any interruption while working the gelatin solution, which is apt to cause blisters. Small plates of plateglass, size $5'' \times 3\frac{1}{2}''$ are necessary, and are coated with plain collodion and dried. fore commencing both bottles are half filled with water. On the upper surface place a piece of card of corresponding size; this is done for two reasons: first, to prevent the glass-plates from touching the tin; second, to keep the gelatin clean, which is apt to drop out during the operation, for further use. The gelatin solution consists of 1 part of clean gelatin and 8 parts of water. The gelatin is cut into small pieces, put in a stone-ware cooking-jar, cold water poured on, and dissolved, continually stirring with a glass rod, with a gentle heat; afterwards strain through a close linen into the gelatin apparatus. Cartes de visite and cabinet photographs are usually mounted on cards with name of the firm on the back, and in the usual manner, touched, pressed, and finished. Those intended for gelatinizing are only discerned from the others by being somewhat larger. The size of the cards, in behalf of subsequent trimming, is marked with a lithographic square. A very frequent cause of failure in gelatinizing cartes de visite, is that the edges, during the operation or later, in taking off the glass, are injured; by using larger cards the latter can be avoided; to avoid the first, a simple method is given below.

"All preparations being in readiness, operate as follows: Several collodionized plates are placed on the large warming-bottle, film side up, for a previous warming. One being placed on the smaller one, a carte de visite is dipped in the warm gelatin solution (face upwards), and after a short pause picked out in such a manner (horizontal, if possible), that a sufficient quantity covers the picture. The picture is now laid with the long edge on the edge of the plate nearest the operator, at the same moment leaving the whole picture come down on the plate. Hold with two fingers of the left hand, the short edge lying nearest, and rub the back with the middle finger of the right in concise regular strokes, commencing at the furthest edge, over the whole picture. Six to seven strokes made with the breadth of the last joint of the middle finger with a slight pressure, are sufficient to remove all superfluous gelatin solution, at the same time any bubbles contained therein. In making the strokes, care must be taken that between the strokes no space is left untouched, as blisters will then surely remain. The gelatin must in a certain manner be forced from the front edge to the opposite. Herewith, as already mentioned, all bubbles are certainly removed.

"The backs of the pictures are then cleaned of the gelatin solution remaining with a sponge dipped in warm water, the plate with the glass side up is placed on a thoroughly wet and flat piece of flannel, until the gelatin has set. This is the method mentioned above to prevent edges coming off directly after gelatinizing. If the eardside of the gelatinized plate is laid on top, they would dry very rapidly, causing shrinking, and a sure coming off at the edges. Being done with gelatinizing, all plates can be turned and dried in an ordinary room temperature. The best time for gelatinizing is in the evening; the next day, about 8 or 9 o'clock, the pictures can be removed from the glass. The removal can be interrupted if the foregoing manipulations have not been closely followed or indifferently. The pictures are often cameoed. For this purpose cameo presses are used, in which the picture is laid and pressed."

INDUSTRIAL EXHIBITIONS.

MR. CADY's article on this subject last month should stir up our photographers, wherever convenient to State fairs or industrial exhibitions, to take more interest in the subject, not only as to being enterprising enough to exhibit of their best works, but also to see to it that they are given good space and good light, and accommodations throughout equal to those given to any branch of industry. And more too, they should, after the parties having these exhibitions in charge go to the trouble and expense of putting up special apartments, see to it that those apartments are well filled. There are complaints on both sides. Chicago is all right as to splendid art rooms, but the photographers don't fill them. This year only Messrs. Ormsby, Armstrong, Hall, Gentile, Klein, Mosher, Brand & Co., Greene, Copelin & Son, Fassett, Hesler, Rocher, and Bradley & Rulofson, of San Francisco, exhibit. This is not right or fair. Where are the rest?

In Boston, owing to want of room, only a few are represented, as follows: Allen & Rowell, J. W. Black, Metcalf & Weldon, successors to Whipple, A. N. Hardy, A. C. Partridge, George K. Warren, A. Marshall, T. R. Burnham; we think this is all. Allen & Rowell show nothing but carbon prints; they deserve much credit. The others exhibit about the same as they had at Chicago.

Benjamin French & Co. are the only ones who make a display of photographic goods, which is very fine for the small space allowed them.

Great complaint is made there because of the obscure place assigned to our beloved art, and so the fault is not with the photographers.

In Cincinnati, only Messrs. Van Loo, Weingartner, Teeples, Cassiday & Co., and Reiman make any show, we believe, and their display is very meagre. For shame! At the American Institute in New York, there is always a fair display, and this year we find about the usual stereotype set of exhibitors, and so far as some of them go they might just as well leave their pictures hang there from year to year.

In Philadelphia, at the Franklin Institute, there is just as fair a show as the space allotted will allow, and the greatest variety we ever saw in any photographic exhibition. Besides the display of Messrs. Gutekunst, Broadbent & Phillips, Garrett & Bro., Trask & Bacon, Cooper, Gilbert & Bro., Suddards & Fennemore, and Brooks, there is a fine display by the Woodbury printing process under charge of Mr. J. Carbutt; by the Heliotype Company; industrial photography by Newell & Son; stereographs by James Cremer; lantern slides by Messrs. Langenheim, Briggs, and Benerman & Wilson; the whole making a very fine show.

In San Francisco, Messrs. Bradley & Rulofson also lead, exhibiting with many others of which we have not heard. Let the good work go on—but better.

SOCIETY GOSSIP.*

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA.—October 7th, the President, J. C. Browne, Esq., presiding.

A series of prints, illustrative of the "Albumen Chloro-Bromide Process," were presented by the President on behalf of Mr. M. Carey Lea, and a vote of thanks ten dered to him therefor.

Mr. George Rau was elected a member of the Society.

^{*} We would be glad to have the secretaries of all photographic societies report their proceedings to us.

Mr. Bell spoke at some length of the keeping qualities of dry plates; he said that some plates of his own manufacture had accompanied the Transit of Venus Expedition, and that they had proved uniformly successful when they had been kept in a dry place on the vessel during the sea-voyage, but that some from the same batch had been left in a box which was exposed to the fumes of coal gas and bilge-water, and that all of these failed. From this he argued that not only dryness, but freedom from gases and fumes was essential to the keeping qualities of dry plates.

The Secretary spoke of cases of insensitiveness in wet collodion films, caused by the fumes of turpentine in the air of the dark-room.

Mr. Bell said that such fumes were highly injurious in the daguerreotype process.

The President exhibited a bottle of albumen prepared by Mr. Ackland's formula, in which the fibrinous matter is removed by glacial acetic acid, and the pure albumen after filtration then made alkaline with strong ammonia. Such a preparation is said to keep indefinitely, but in the case of the sample exhibited, decomposition had set in, and the whole mass was of a light claret color. The President said that it had been prepared in February last, and that the formula as published by Mr. Ackland had been rigidly adhered to in the preparation. No one present could offer an explanation of the phenomenon.

BOSTON PHOTOGRAPHIC ASSOCIATION.— October 2d, the Vice-President, Mr. W. T. Bowers presiding.

Mr. Black stated that the Executive Committee of the National Photographic Association were considering the expediency of changing the place for the annual meeting to some other place than Boston—perhaps to San Francisco.

Mr. Rowell said he would like to have the Convention meet at Boston if we could do the thing up nicely; thought the great trouble would be to secure a suitable place to meet, and also to exhibit the pictures. Would not object to go to San Francisco if they did not come here.

Mr. Black said if the Association came here he would expect every man to take

hold and help put the thing through in good style, and thought the same as Mr. Rowell, that the trouble would be in getting a hall or exhibition-room suitable.

Mr. Burnham thought they could get some unoccupied building like the one he was in, that would do very well and at little expense, as there are several new buildings unoccupied and others building.

The President, Mr. Bowers, hoped the Executive Committee would stir up the photographers and make a fine exhibition and have a nice, pleasant meeting; and in regard to the Mechanics' Exhibition now in operation in this city, he said he felt very indignant when he went there and saw an art gallery especially erected, but not a photograph in the room that was well lighted, but that they were crowded away in a dark corner downstairs with the ceramics, statuary, bronzes, plaster casts, parians, etc. etc. He thought by that they were considered not suitable to be placed on exhibition with oil paintings, water colors, and steel engravings.

Mr. Black said he was of the same opinion; that Messrs. Allen and Rowell had a fine exhibition of carbon pictures that deserved a better light, and that they displayed merit and commendation. That an eminent artist told him one day that he thought the photographers had been entirely ignored.

Many artists (so they call themselves) depend on our photographs to make their pictures, for we give them the position, the light and shadow, and sometimes the expression that they could not get if they should paint a dozen pictures without our pictures to copy from, and when they have finished it, it is their own idea. "I painted this, and photographs are of no account." They slur and entirely ignore all photographs.

Mr. Rowell expressed the same feelings as Mr. Black, and both were very sorry they had any pictures in the exhibition.

Mr. Hardy, of Bangor, Me., was introduced, and expressed great pleasure at being with us. Said he thought the real artist could be known by his works, whether with a red-hot poker on a board, or a pallet knife or brush on canvas. He thought that some artists appreciated photography.

By request, several members present stated the way they deliver proofs, and the charge made at the time of sitting. Most of them require a deposit at time of sitting.

On motion of Mr. Low, it was voted that a committee be appointed to see what arrangements could be made with the Boston Athenæum, so the members could visit it with some competent artist to point out the beauties of the pictures. By request of Mr. Low, it was referred to the Executive Committee.

Mr. Wing said he had heard that the reason why the National Photographic Association did not want to come to Boston, was that the members were afraid they would be sued by him; that he would pledge himself that if the Convention would come to Boston, not a man from the time he left his home until he returned should be molested by him or any of his servants.

He would be one of a hundred, or seventyfive, to hire a hall, get apparatus, etc., and help support it, so we could have an exhibition of some sort every meeting.

On motion of Mr. Halliman, it was voted that we have an exhibition of the stereopticon at the next meeting, and that all that could, be requested to bring transparencies for exhibition.

PENNSYLVANIA (Philadelphia). — October 19th, some discussion was had on a picture that was entered for competition.

Mr. Saylor thought there should be some explanation as to the defects in a picture that was not up to the standard chosen by the Association. He had been greatly benefited and had made great improvement since his connection with the Association; it paid him to come from Lancaster to attend these meetings, and he wanted to see them made interesting and instructive. If this were his picture that he had brought for competition he would want to know wherein he had failed, then he would go home and try again till he had corrected the fault.

Mr. Clemons said the picture was undertimed, and the developer had been used too strong. From experiments he had made he had found that a short exposure with strong iron produced a heavy deposit on the lights, with but little or no deposit in the shadows and middle tints. The quantity of acid used should be according to the strength of the developer. A weak developer requires very little acid, and is best if sufficient time can be had. An excess of acid retards the development, and prevents the detail in the shadows from being brought out.

Mr. Lenzi exhibited specimens of his new embossing process, which he claims is very simple and inexpensive. They were well executed, and received favorable comments from the members.

Mr. McCollin said he had just received from Paris, by letter, a new formula for retouching by a mechanical process, which was said to be very simple and effective. From Mr. McCollin's description, it was concluded to be the Lambert process, which has been referred to in the photographic journals, and which has been patented both in Europe and in this country.

A paper on Protosulphate of Iron, by William W. Seeler, was received and read. See below.

PROTOSULPHATE OF IRON.*

In looking over the reported proceedings of the Pennsylvania Photographic Association, in the October number of the Philadelphia Photographer, I noticed a few remarks on the trouble experienced from an impure article of protosulphate of iron, which I may be able to correct to a certain extent. I am of opinion that the difficulty arises more from the effects of oxidation than from any other cause. Almost all samples of protosulphate of iron which I have examined have an acid reaction, which can be corrected by dissolving and recrystallizing.

The term "oxygen" means "generator of acid," and it was formerly supposed to be the essential principle of all acids, but hydrogen has since been found to contain the same properties. Its union with metals and other substances is called "oxidation," and the product is an oxide. One equivalent of oxygen is called protoxide, two deutoxide, and three sesquioxide or peroxide.

^{*} Read before the Pennsylvania Photographic Association.

Protosulphate of iron, when pure, is of a bluish-green color; by exposure to dry air it becomes white on the surface; if exposed to moisture it oxidizes and becomes a brownish-yellow, thus showing that great care should be exercised in preventing air or moisture from coming in contact with this substance when in bulk.

It is well known to those who make plain iron solution in large quantities that if not used in a short time it oxidizes, and a brownish precipitate is formed. If a small quantity of any free acid is added to the iron solution, it becomes red from the same cause. It is impossible to keep the developing solution for any length of time without showing the effects of this oxidation, which necessitates a longer period of exposure and development. It will also be noticed that the delicate detail of the negative is lost when this old solution is used.

Metallic iron, when exposed to moisture or air, oxidizes or "rusts;" the same result is apparent with protosulphate or any of the compounds of iron. The oxygen from the atmosphere causes them to return to the crude condition in which they were first found.

WILLIAM W. SEELER.

MATTERS OF THE



Membership costs \$2; annual dues, \$4, in advance. Employés half rates. Life membership, \$25, and no dues. It is proposed presently to double the fees for life membership.

Members are hereby notified that their annual dues were payable June 1st, 1874. Employers \$4, and employés \$2. The Treasurer urges that prompt remittances be made. Please remit now.

All remittances of back dues should be sent to the Treasurer, Albert Moore, 828 Wood Street, Philadelphia, and fees and dues for new members to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

Some Real Facts .- A great deal of the feeling in existence among photographers against patents is due to the manner in which the owners of said patents conduct themselves. We would not speak of it had not one of the gentlemen alluded to referred to it. We allude to Mr. Wing, who at the last meeting of the Boston Photographic Association took it upon himself to "pledge" that if the National Photographic Association Convention be held in Boston in 1875, that he would not sue any one of the visitors for infringement of his patent, meaning the so-called "sliding plate-holder patent." For shame, that there should be any necessity for such a scene as this—a patentee professing to be interested in photographic progress, and swearing in his application for a patent that his invention is for the advancement of his art, getting up in a photographic society and offering such a "pledge" as a coaxer for the fraternity to come to the Hub. Didst ever read the story of "The Spider and the Fly?" Now we love Boston and its people, and in no section is our circulation larger, and our sales of books more satisfactory than in New England, but we cannot "hurrah" for it for 1875 unless something a great deal more substantial than any man's promise or any man's patent is placed in the hands of our President. The real facts are that for two or three years the attendants upon the National Photographic Association Conventions have been pestered and bothered and unnecessarily annoyed by summonses and writs, and subpœnas from owners of dubious patents which the high courts of the country never sustained. Is this furthering progress, ye ingenious inventors? If a man owns a patent and it is disputed, why does he not speedily have a test case and establish it if he can, or if he cannot, go into some honest business? There are now under way more than half a dozen suits in one well-known case. Why not push one to an issue. We hope that no one is so foolish as to be influenced by the fact that certain "influential and prominent photographers are being sued" by certain patentees. Nothing but an absolute and final decree of the courts should satisfy any one of the validity of a patent which is of a dubious character. We know that many staid away from the Chicago Convention from fear of being sued. An evil exists somewhere. Let it be rooted out.

Opposition is being made in behalf of the photographers to the application for an extension of a well-known but never established patent, with good hopes of success. More soon.



DEAR SPHYNX: I desire to answer one or two of your September riddles.

Nitrate of copper may be eliminated from a solution of nitrate of silver, by boiling the solution down to a small quantity or nearly dry, and adding, while hot or boiling, oxide of silver, obtained by means of caustic potash. Dissolve a piece of the potash in water, and add slowly to it a solution of nitrate of silver until no more dark-brown precipitate is formed; wash the precipitate until the water passes off quite clear, and you have an excellent alkaline oxide of silver, a very good article to keep on hand.

Add of this oxide to the boiling bath (as before stated), a little at a time, until you think all the copper has been oxidized, then take a small portion of the bath and reduce with distilled water, and filter; add to the filtered solution a drop of ammonia, when, if the solution shows no trace of blue (copper), the whole bath is free, and may be brought to the required strength with distilled water and filtered, and acidified if necessary with nitric acid, and it is ready for use. But if a trace of blue oxide of copper be apparent in the test, more of the oxide of silver must be added to the boiling solution until the test shows no copper.

This brown oxide of silver is the best substance I have ever tried with which to neutralize both, negative and positive baths. An excess does no harm.

I think "Thomas" has been victimized in the quality of the ether or alcohol used in his collodion, or perhaps a drachm more of alcohol to the ounce of collodion would cure his streaks. If the plates were at fault, the streaks could NOT follow the direction of the dip always. If he will take his bath out of the holder and set it where he can observe the action of the bath at the moment of dipping he will discover something-an interesting, but by no means a pleasing, experiment. He will probably see that the current of the solution over the plate is not even and smooth, owing to some repulsive force, as continued rapid volatilization of the solvents, or the presence of volatile oil in the solvents. I have had the "bull by the horns" in times past. I have found that more alcohol in the collodion, and time for the film to set well, with slow, steady dipping, a remedy, but GOOD chemicals to be the cure.

I should advise "Thomas" to throw his nitric acid away, and use instead a nearly saturated solution of bichromate of potash, containing a half pound by weight of good sulphuric acid to the gallon.

F. M. SPENCER.

P. S.—I dry my paper over an oil lamp, allowing it to hang first until it begins to curl up.

I do so, 1st. Because it will never dry thoroughly spontaneously in a moist atmosphere.

2d. To keep the silver from penetrating into the paper too far, or journeying to the wrong side of it.

3d. I have found that the print is made where the silver stops, and I like my prints on the surface.

4th. It keeps white much longer.

5th. I finish drying by artificial means, so as not to be all day about it.

6th. The prints tone better and quicker.

F. M. S.

WILL Sphynx be kind enough to tell me how to avoid the contraction or converg-

ing, in taking architectural views from the ground, when the instrument is pointed upwards, the corners not coming perpendicular but drawn in at the top; when a front view is taken, both corners converging. I have a 4 x 4 Globe lens and 4 x 4 Steinheil; both have the same effect. Will a swing front and back rectify it?—having never tried one, I don't know,—or will a longer focus instrument remedy it? If some one will give the desired information he will greatly oblige,

INQUIRER.

DEAR SPHYNX: Your answer to "H." is good, but probably not what he wanted. Give him the following for polishing photographs. I have used it for years, and would be still but for the Burnisher, which has superseded it.

Shave I ounce of white wax and put into a bottle; then add I ounce of ether, which will soften the wax. After which, add 6 ounces of alcohol and two ounces of any good negative varnish. Shake thoroughly. Apply to the mounted photograph with a piece of Canton flannel, and rub briskly. Any desired gloss can be given by repeating the application.

B. F. HALL.

M. H. M., SPHYNX, September, 1874, says: "There is no way of getting rid of the copper." Suppose the next one in trouble tries the following plan. Before boiling down make the silver solution acid with nitric acid C. P. Then fuse, and stir the molten silver with a glass rod; it will become black. Continue the process for about fifteen minutes; when cold the silver will be black, and when dissolved the solution will be black as ink, but will filter clear and limpid. The continued exposure by stirring the fused mass, brings the hot copper in contact with the atmosphere which renders it insoluble. I am not a chemist, so cannot say what change takes place, but a chemist informs me that the copper is oxidized, and when the fused mass is redissolved falls to the bottom in a black insoluble powder. A bath so treated appears to get rid of the copper, but whether it does or not, it makes clean negatives.

OUR PICTURE.

THE interesting little picture illustrative of the class of "stirring subjects," which present themselves to the photographer, and which graces our current number, was one of the competitors for our prize medal, offered last summer. The negatives were made by Mr. G. M. Elton, Palmyra, N. Y. Although it did not take the medal, we considered it worthy of being used as one of our embellishments. Those who remember Mr. Elton's work at the Buffalo Exhibition will agree that he has made rapid improvement, and some pictures we received from him but the day before this writing, are also far ahead of this. Mr. Elton is undoubtedly a rising artist. The tremendous quantity of pictures needed for our use, makes the time of printing so long, that by the time a man's picture appears, he is almost ashamed to own it, for if he be a progressive man, he will have made such improvements during the printing as to make it hardly fair to show our picture as an example of his then best work. Mr. Elton is one of this sort of men. He preferred to print the pictures for our use, and has done them handsomely. He has sent us his formula, which we append. Please notice particularly the quality of the Albion paper on which the prints were made. Mr. Elton says: "I give you my formula for making

Collodion.

Ether and Alcohol, equal parts. Cotton, 4 to 5 grains to ounce. Iodide of Ammonium, . . 4 " " Bromide of Cadmium, . . $1\frac{1}{2}$ " " Bromide of Potassium, . 1 " " Iodide of Lithium, . . 2 " " Silver bath, 40 grains strong and acid.

Developer.

Water,			16 ounces.
Iron,			1 ounce.
Acid,			1 "

"I used the Albion Albumenizing Company's paper, and like it very much. I am working a north light very similar to Mr. Barhydt's, with top and side screens."

Dr. Vogel's Handbook of Photography, second edition, is ready. Price \$3.50, by post.

OBITUARY.

SCARCELY was the ink dry after last month writing a notice of the death of our old friend Gage, when the startling news came to us of the death of Mr. Jacob Barhydt, of Rochester, N. Y., on the evening of the 30th of September, in the 52d year of his age. It was indeed a sad announcement, and one that stirs the deepest emotions of regret wherever he was known. From the Rochester papers we have affectionate tributes to his memory, showing how much he was beloved and respected among those who knew him best. But it is not only upon his own family, his relatives, his townspeople, that this bereavement falls heavily; we of the photographic fraternity have suffered a heavy loss, and the guiding influence, the high attainments, and the brilliant example of his professional life will be sadly missed by all who are striving for the goal of excellence, to which he so brilliantly led the way.

"Alas, alas, for the fading of light

From eyes whose glances were loving and bright; For the heart that throbbed ever an answering tone

To the truth, and the trust, and the love of our own!"

Like a meteor he flashed upon the photographic sky at the Convention in Buffalo last year, and startled all with the magnificent productions of his art. At Chicago he was even still further in advance, and in the judgment of many outrivalled all competition.

Our personal relations with Mr. Barhydt were of the pleasantest and most cordial nature; and when we had such a happy interview with him in Chicago last summer, we felt proud that we had such a man that was willing to use his influence and example for the education and encouragement of others, little thinking his light was so soon to go out. But he has left a name that is "more precious than silver or gold," and a legacy to the photographers of this country in the beautiful examples of his work that will serve as a guide to all who are aiming for improvement for years to come. His memory will long be cherished by all who have heard of his fame, and wish to be guided by his example.

A CARD FROM PRESIDENT RULOFSON, OF THE N. P. A.

San Francisco, October 15th, 1874.

EDWARD L. WILSON,

Secretary N. P. A.

It is with feelings of the most profound sorrow I learn of the death of Jacob Barhydt, so suddenly called from the bosom of his family and his field of usefulness, as an ornament to our profession, and a most successful co-worker in the foremost rank of the Association, to join that great army in the country whence no traveller returns. I must say I feel that we have sustained a great loss.

I addressed a few lines of condolence to the bereaved family, and would be pleased to see my name appended to appropriate resolutions expressing our esteem for the deceased, and our sympathy for his family.

Very respectfully,
WM H. RULOFSON,
President N. P. A.

We have to record another loss to our art in the death of the son of our good friend, Mr. I. B. Webster, of Louisville, Kentucky. We extract from his letter as follows:

"It is with grief that I am again under the painful necessity of informing you of another affliction which has visited my household, it being the death of my eldest son, Eugene, aged twenty-four years. He came to his death by drowning while crossing the Ohio River in a skiff, in company with two companions, on the evening of October 10th. The body was found about forty hours afterward, in the immediate vicinity, which I immediately recovered, having taken the first steamer down. The accident occurred one hundred miles below here, four miles this side of Cloverport, Kentucky.

"He was a promising young man, and possessed many noble and virtuous qualities. He was a leading member of his Sunday-school, Bible-class, the church, and the choir.

"I. B. Webster."

It was but a few months ago that Mr. Webster lost his wife, and this doubled affliction will excite the sympathy of his many friends, and they are many.

Filterings from the Fraternity.

As our filtrations seemed to be a success last month, we devote a good share of our present number to some more of the same sort, to the exclusion of still many more chapters of the same kind in hand, and other valuable articles, saying nothing of the "pages of testimonials" sent us respecting the "value" of sundry cottons, collodions, lenses, etc., etc. We cannot "follow" in such things. Haven't room. Must stick to the "practical."

Mr. J. PITCHER SPOONER, Stockton, California, contributes the following good hints:

BLISTER CURE.

"A short time since, while suffering from blistering—that excellent, gentlemanly, photographic artist (yes, he is all three), John A. Todd, of Sacramento, California, dropped in to interview us, and in his off-hand way says, 'Run a little water into your hypo just before you take your prints out, wait till it's thoroughly mixed with the hypo, then add a little more, and repeat three or four times; by that time the hypo will have become the same temperature as the water the prints are to wash in.' It's a sure cure; safe and expeditious.

ENLARGEMENT FORMULÆ.

"When your neighbor cuts under the price, and in proportion issues an inferior quality of work, and boldly says to your face he is getting 'first-rate prices,' then is the time to enlarge (your business), and by making extra-finished work, and showing it to the appreciative public. Enlarge by remembering to help the exhibitions at fairs; enlarge by employing the best of help, and best of artists; by keeping posted in matters photographic, and of the National Photographic Association, and, by judiciously appealing to the artistic tastes of your patrons through the public press, your business must enlarge."

Mr. J. W. Morgeneier, of Sheboygan, Wisconsin, gives something useful to those who are troubled with tear-drops.

DIFFICULTY IN SILVERING THE PAPER.

"In our leading photographic journals the complaint has often been made, that by

silvering the paper the same sometimes dries in 'tears' or 'drops,' through which it becomes useless. This stubborn evil, which probably meets many a photographer, has been tried to be remedied by different formulæ. I take the permission to communicate the particular cause on this point I have made by my own experience. The only reason for the above appearance is, without exception, to be found in too hard and dry a surface of the albumen. I have discovered such by all the different papers in the market. I observed that this trouble made its appearance in many galleries of certain districts at the same time, therefore proving that the silver bath is not the cause of the above-named trouble, for, one may have a new bath, another an old bath made different, in some parts a damp atmosphere, while in others a warm and dry. A certain quantity of paper so prepared and distributed by the dealer amongst his customers confirms this. The different communications to me from brother photographers, at various times, proves beyond a doubt that my statement is nearest correct.

"My remedy is: Immerse the paper for two seconds in absolute alcohol, hang up and dry, then put it in a portfolio to straighten, and it is ready for silvering. This simple and economical process makes the paper work brilliant, and gives perfect satisfaction."

RETOUCHING AND LIGHTING.

Mr. D. H. Spencer, of Hudson, Michigan, gives some valuable suggestions on retouching and lighting.

"The following suggestions on the subject of retouching negatives may benefit those of limited experience in that branch.

"I suppose there is much sameness in the mode of doing this branch of business. But I have introduced a help in this department which I think is little used, if used at all. I refer to the use of a hand (magnifying) glass, four inches in diameter. I find this article so indispensable that I keep two in my establishment, and, while I admit that many others do fine pencilling without the glass, I do know that it is a great help to me, and that I can do the work twice as well as I could without it. I sometimes 'grind' the surface to be pencilled, but

often do not. When much is to be done to the face, as in case of freckles and blotches, I should grind; and when little is to be done I should not grind. The best substance to use in grinding the face of a negative I believe to be powdered rosin. have tried other materials for that purpose, and have spoiled several negatives in the effort to make something else work, but the rosin never plays me tricks. I shall not advocate a grade of pencil in opposition to the usual custom of the craft further than to say I have not been successful with the harder grades. I seldom use a pencil harder than HB, and never beyond H, while I often use B. I would also add my testimony to the value of the little headscreen most have heard of, but by many untried. If your light ever gives you ugly shadows around the eyes, under chin and nose, try the head-screen; it will do wonders for you."

GENTILE'S CHICAGO PROCESS.

Mr. C. Gentile, of Chicago, communicates his negative process, as follows:

"I find that the best results are obtained by being particular in manipulation, and using every care in mixing the different chemicals. I use a nitrate bath, about 35 grains, varied a little occasionally to the temperature and collodion used and light. Collodion I make myself.

Developer.

Pure Sulphate of Iron, . . 4 ounces. Water, about 60 ...

"No redeveloper is required. Fix in hypo.

"I find by sticking to the above, with my bath in good order, always good results can be obtained."

Mr. H. J. Rodgers, of Hartford, Conn., gives a process for instantaneous pictures, or for very short exposure at least.

SHORT EXPOSURE.

"Many devices have been conceived of to shorten and make more agreeable the time which has been necessary to produce a good negative. I have tried a few of these and cannot feel satisfied that they are practical. It has seemed to me that if the time of exposing the plate is reduced, it must be accomplished in a great measure through chemical agency. I have not looked upon a strong developer as having any tendency to arrive at the object desired; because if we have an excess of iron, there must be a corresponding restraining effect.

"This appears in my mind like two powerful locomotives hitched together by the tenders and headed in opposite directions. A short time since I tried an experiment as follows, and the result has been instantaneous for baby pictures, while the time necessary for an adult was reduced three-quarters, and in some instances far more.

"Prepare albumen for negatives as follows:

"Filter, of course, before albumenizing the glass, as usual.

Developer.

"Collodion and bath as usual, except do not let the collodionized plate get too dry before immersion. It will be observed that the negatives will be unusually soft and fine, and free from pinholes, stains, etc.

"P. S.—Since experimenting with the above I have saved my developer which has been used, by developing over a large flat dish, and to 16 ounces I added \(\frac{1}{4}\) ounce of fresh protosulphate of iron, and the result is even more pleasing, the film being finer and softer in effect. For a negative of a girl of fair complexion, eleven years of age, the time was reduced to one second; and for an adult, three seconds. This developer adds fifty per cent. to the fineness and beauty of a ferrotype."

DRYING AND FUMING.

From MESSRS. WILT BROTHERS, Franklin, Pennsylvania, we have a suggestion for drying and fuming paper. "A good drying and fuming box may be made as follows:

"Take a common dry-goods box, about three feet long and twelve by twenty inches deep and wide, size not particular; make a door of the top, and paper inside and outside; set on end in a dry room. When the paper is silvered it should be hung up to drip, silver side out, and, to prevent curling, fasten two corners together by means of pieces of cardboard, one and one-fourth inch long by half an inch wide, and cut one-third their length like a pen. Put this split card on the two corners, which will hold them in position; attach also a small piece of filtering or tissue paper to the lower corner, to carry off the drop. Across the top of the drying-box stretch two wires equidistant from the front, back, and each other; on these wires spring clothes-pins should be placed so as to move easily wherever wanted. Eight inches from the bottom a piece of wire-cloth should be stretched the full size of the box When the paper has ceased dripping, place two pieces back to back, fasten two or three corners, according to the size, with the cardboard already described, and suspend by the clothes-pins on the wires. If large, suspend by two pins; if small, one is enough. Heat is produced by an alcohol lamp under the wire-cloth, which diffuses the heat uniformly. Dry in ten minutes; when dry, remove the lamp and in its place put the ammonia for fuming. When fumed, opening and shutting the door violently will expel the excess of ammonia, and the paper may remain in the box until wanted. Paper rapidly dried in the dark gives more brilliant prints, and is more sensitive. Paper kept long in a very dry room has the peculiar property of not printing until some hours after silvering; the same paper hung in a damp room over night, and silvered as usual, will print all right. Paper prints most brilliant when just dry enough not to stick to the negative; if very dry, it prints harsh, and will not take a pleasant tone. Too dry paper gives prints lacking detail in the shadows and softness in the high-lights,-dead-looking prints (but good enough for \$2 a dozen)."

From the Bulletin Belge we extract the following formula for

LIQUID GLUE,

Used for sticking glass, porcelain, etc., and for making paper adhere to a metallic surface. It is composed of a concentrated solution of gum arabie (2 parts of gum for 5 of water), to which is added sulphate of alumina. For 250 grammes (8 ounces) of the solution of gum, it suffices to add 2 grammes (31 grains) of crystallized alumina, which is mixed with the gum, having been previously dissolved in 20 grammes ($\frac{2}{3}$ ounce) of water.

From Mr. H. C. WILT of Franklin, Pa., we have the following

USEFUL HINTS.

"The heat of the back of the hand, or body, when flowing a plate, applied to the back of the plate, ofttimes prevents the plate from chilling in cold or damp darkrooms or tents.

"Breathing upon the weak side or part of the plate or negative when developing or holding the plate or negative over the warm hand or heated substances will, almost as well as warming the developer, improve development on the weak parts, or allow of shorter exposures. I always found a warm negative bath and a cool collodion to work quick.

How I PHOTOGRAPHED THE MOON.

"I placed my camera upon a windowsill moonwards, and focussed, using a medium size diaphragm. While exposing, I stood directly behind the camera, and, aiming over the centre at the moon as it travelled, moved the camera box as close as I could in the direction of the moon, exposed three seconds, and developed.

"To my surprise I had a negative of the moon which printed very fair and distinct. Of course a little practice in moving the camera previous to exposing would be practicable, somewhat like shooting on the wing."

HINTS FROM PROVIDENCE.

Mr. G. M. Carlisle, of Providence, R. I., most generously gives us his whole formulæ. Here we have the photographic

process in a nutshell, together with some useful hints that all may profit by. Hesays:

"I fear the readers of the Philadelphia Photographer will find but little in my mode of working that is new or novel. 1 have tried a silver bath of varied strength, and find that 30 grains of silver to the ounce of water gives me a finer negative than a stronger or weaker solution will. I use ordinary river-water, and after iodizing my 30-grain solution with 1 grain iodide of potassium to the ounce, I place it in the sun for a day, filter clear, make quite acid, say 4 ounce nitric acid to a gallon of solution.

"My collodion is composed of

. 60 parts. Ether, . Atwood's Alcohol, . 40 Iodide of Ammonium, . 21 grains to ounce. Iodide of Potassium, . 21 Bromide of Ammonium, 11 .. Bromide of Cadmium, . 14 Gun-cotton, .

and if found to be too thick, add alcohol to suit your work, and just here let me say that I have used for some time 'Challenge Cotton,' and find it the most soluble and uniform I have ever used, in fact, a better article than I have been able to make or buy. My developer is a simple 15-grain sulphate of iron solution, very acid, say 4 ounces acetic acid to a quart, and I develop my negative as long as the developer will continue to act; seldom find it necessary to redevelop, but when I do I flow over three or four times a 15-grain silver solution and again develop very little, for here there is danger of over-development. I have never found any advantage in using ammoniosulphate of iron, therefore use only the pure sulphate. I retouch my negatives very sparingly, in fact, as little as possible.

"My printing bath is kept from 45 to 50 grains, made slightly alkaline with liquor ammonia, and kept filtered and as free from other substances as possible, believing that a pure silver solution, without any doctoring whatever, containing neither alum, glycerin, nor in fact anything but pure silver, kept alkaline as above, will work better and easier than anything yet discovered.

"I tone with a citric acid and gold bath in the usual manner, and fix in hyposulphite 7 to 10 minutes, fresh hyposulphite of soda each time.

"While I would not, if I could, deter any person from experimenting, I believe a simple formula as above, carefully worked, much better than skipping from one process to another without any really settled method. I think the progress our beautiful art has made in the past few years is very much more due to careful posing and lighting than to any advance made in the way of chemical dodges. I am not a believer in any man's success lying in a good process obtained from a successful photographer. I remember when a Boston firm first introduced retouched negatives, how the operators of that city, and in fact from other cities, took the first opportunity to visit Messrs. - and with compass take the exact location of their light, its angle, how screened, etc., etc., to return home and remodel their own lights, thinking thereby to make just as good work; and at a new gallery opened in another city, where better work was done than had been previously produced there, blue tarletane was tacked up under the light and above the curtains. The neighboring photographers, on hearing of the blue tarletane dodge, made such a run on dry-goods stores that tarletane advanced 5 cents per yard, and yet they did not produce a superior grade of work.

"I want my operators to be capable of using a light of any angle, at any point of the compass, say from 8 to 16 feet high, and with good instruments (which I never fail to have), and work the old simple process, stripped of all superfluities in the way of sugar-coated developer and glyceringreased silver baths, and produce good, elean, pure work. Dirt in any form is the common enemy of our profession, and the best formula that could at this time be offered to photographers is one pertaining to perfect cleanliness. Keep your platcholders well varnished with asphaltum varnish, and camera box itself free from dust, and one great object will have been attained. Frequently change your samples or show at the door; never allow soiled or dusty prints to remain on exhibition. See that your entrance and stairs are kept perfectly clean. Let your reception-room wear a

neat and cheerful appearance, and put any extra furniture you may have in the operating-room, for there it is more needed to give variety and style to your work. Permit no work to leave the gallery that you would hesitate to acknowledge at any time under any circumstances. Practice the golden rule in your business transactions, doing unto others as you would they would do unto you under like circumstances, and your success is sure."

Some very good hints and formulæ may be found in the following gleanings from the Bulletin Belge de la Photographie.

"DEVELOPER WITH COPPER OF MR. QUIGUEREZ.

Filtered Water, . . 1000 grammes, 32 ounces. Sulphate of Iron, . 25 " 386 grains. Sulphate of Copper, . 10 " 154 "

"Dissolve and add,

"Agitate, allow it to rest for a night, and filter.

"This bath will keep for a long time and gives very fine images, and of a density almost always sufficient for the printing of positives. However, each operator will choose the bath with which he has the most success."

"ENCAUSTIC PASTE OF MR. SANS.

Pulverized Gum Arabic, . 2 parts.
Pulverized Rock Candy, . 5 "
Transparent Glycerin soap,
well scraped, . . . 10 "
Water, q.s. to sufficiently wet the soap
and dissolve the whole.

" Now add:

Alcohol at 40°,

White Wax, scraped, . . 10 parts.

" Heat over a water-bath, stirring continually in an earthen vessel five times the size of the contents. Pour into a pot. When cold, this encaustic should have the consistency of a good pomade."

"DRY COLLODION, VERY RAPID, OF MR. CLAVIER D'ALGER.

"The cleaned glass is covered with a preliminary coating of diluted albumen (the white of one egg in one litre (quart) of water), then after drying, is collodionized with the following collodion:

50 e.e., 14 drachms.

"This solution No. 1, is obtained by dissolving over a water-bath, in a glass retort, three grammes (46 grains) of yellow or white wax in 30 cubic centimetres (8 drachms) of alcohol at 40°; when cold, add again 30 cubic centimetres (8 drachms) of alcohol, agitate, filter through paper, after which dissolve in the liquid 3.75 grammes, (58 grains) of rosin.

"Sensitize in a silver bath at eight per cent. slightly acid, wash with care, then cover the coating with a solution of tannin at one per cent. Thus prepared, the plates may be preserved a long time without losing their sensibility. The development is the same as in all dry processes."

Editor's Table.

"STEREOSCOPIC SELECTIONS." Published by Kilburn Brothers, Littleton, N. H.—This is a small catalogue issued by the Kilburn Brothers, embracing some of their choicest subjects under the following heads: Groups; Frost and Ice; Illustrations of the Vision of Sir Launfal, twelve views; Flowers; Animals; The Sugar Orchard; Fruit; Harvest; Sporting; Yachting; Shells and Coral; Reminiscences of Washington, and the Declaration of Independence.

W. E. BOWMAN, of Ottowa, Ill., has been adding new laurels to his fame by photographing the Methodist Conference at Sterling, Ill. His effort with so difficult a subject, is pronounced "the best of his professional life," and receives much praise.

HUNTINGTON & BARTRAM, of St. Paul, Minn., have been burned out, suffering a total loss of about \$8000. But we are glad to hear their courage is good, and they expect to soon be at work again in a new gallery. Here is another argument in favor of a Mutual Insurance League.

THE INTERMEDIATE CAMERA HOLDER is a device to hold and direct the tube, which may be placed at such angle as is desired in photographing an elevated subject, or producing any effect that is usually secured by a swing-back. It is the invention of Mr. S. A. Holmes, of New York, who speaks very highly of its merits.

Fire! Water! Smoke!—Mr. John R. Clemons, of this city, manufacturer of Clemons's Albumen Paper, has recently been a sufferer; but though in the midst of the fire he was not even scorched, but badly wetted and smoked. It was a little remarkable that there should have been fire all around him, and yet it did not penetrate his establishment. It was quite an eggs-traordinary case. The loss of life in this cat-astrophy was confined to a faithful tabby, that is supposed to have expired from a want of proper proportions of oxygen, nitrogen, carbonic acid, and other gases in the atmosphere. Mr. Clemons's loss was mostly on his stock of albumen paper, and was covered by insurance.

The above fire originated in the sewing machine apartments of Wheeler & Wilson, and directly under the skylight-room of Messrs. Taylor & Brown, 914 Chestnut Street, which was entirely burned out. They were fortunate, however, in having skylights in the front of their establishment, so that they suffer no interruption of business.

PORTRAITS BY THE WOODBURY PROCESS.—We have received some very excellent portraits, made by the Woodbury Process, from Mr. J. Carbutt, Superintendent, 624 North Twenty-fourth Street, Philadelphia. They are fully equal to silver prints, and a great step forward in mechanical printing.

FROM Richmond, Va., we notice the opening of a new gallery by Mr. D. H. Anderson. It is referred to in a local paper as "one of the most elegant in the South.'' We congratulate Mr. Anderson, and wish him success.

CITY OF SAN DIEGO, CALIFORNIA.—We have on our table a pamphlet, containing information in reference to the climate, mineral resources, commerce, etc., of the above city, together with a business directory, and twenty-two photographic illustrations, by Messrs. Parker & Parker and C. P. Fessenden, of San Diego.

PICTURES RECEIVED .- Cabinets: From G. M. Elton, Palmyra, N. Y., some finely executed specimens, showing careful and judicious management in lighting and composition .- Perry & Bohm, Denver, Col., some very successful work .-Limpert & North, Columbus, Ohio, attractive samples of vignettes with clouded margin, quite ethereal and effective. -G.W. Edmonson, a variety of styles of composition, excelling in the full figures .- Cards from John Terras, Markinch, Scotland, samples not retouched, mostly small heads, well executed .- Specimens of permanent photographic printing by the Woodbury process, American Photo-Relief Printing Company, John Carbutt, Superintendent,-everything, from a skeleton bouquet to a steam engine .- A. F. Burnham, cards and stereos. - Stereoscopic pictures from F. G. Weller, Littleton, N. H. ("Stereo Treasures"); F. B. Clench, Lockport, N. Y.; Finley & Son, Canandaigua, N. Y.; G. W. Edmonson, Plymouth, Ohio. - Stereos: W. J. Topley, Ottawa, some fine views of winter and other scenery in and around the Canadian capital.

We have received from our old friend and correspondent, Prof. C. Piazzi Smith, several pamphlets relating to his excellent work at the great Pyramid and his controversies with the Royal Society, together with a descriptive catalogue of his photographs of that great structure, taken in 1865, and before noticed by us. The pictures are for sale by Mr. J. Pollitt, Barlow's Court, Market Street, Manchester, England. They are of the interior as well as the exterior, and are exceedingly interesting.

BOOKS.—Remember that Benerman & Wilson are the only parties in the whole world who make it their regular business to publish photographic books. They have at least one work of instructions on every department of the art. Please read their advertised catalogue and make your selections early for the long winter evenings. Also read our "Red Letter" sheet, giving new ideas to our subscribers.

THE PHOTOGRAPHERS' FRIEND, which has been published by Mr. R. Walzl, of Baltimore, for several years, has been purchased by us, and will be merged in this magazine. Mr. Walzl has found, as we did several years ago, that one cannot well conduct a stock depot and do his duty to a magazino too. A stockdealer must necessarily, on account of interest, be biased in certain directions, which fact unfits him for the position of a journalist such as a journalist should be.

We shall endeavor to make those readers of the Friend who do not already take this magazine to feel that if they come over to us they will never want a friend. We are making greater preparations for usefulness for 1875, and trust that we shall not only have the Friend, but a host of new friends.

POSTAGE FREE FOR 1875.—The new postal law compels publishers to prepay postage. As this burden will come upon us without any corresponding return, we look to our readers to be prompt in their payments in advance, and to secure us all the *new* subscribers they can.

THE HEARING IN THE WING-TOMPKINS SUIT has been postponed, on motion of the plaintiffs, to January next. This is not to be regarded as detrimental to or as prejudicing the result in any way. Have patience; Mr. Tompkins is doing all in his power, and at this writing is in Philadelphia taking new and valuable testimony.

Spicer's Lustrene.—Frequenters of some of our offices will hardly know them when next they come in, owing to the gloss and glare which has been caused by two bottles of Spicer's Lustrene having been applied to things generally. We are all liable to grow old and rusty-looking, but Lustrene will polish us up. Fear not. It has a charming effect upon old frames and furniture. Mr. C. A. Wilson, No. 7 North Charles Street, Baltimore, is agent for it, and we presume it may be had of all dealers.

Hance's Photographic Specialties.—It is always a pleasure to see any one's business grow, especially if it is one which benefits others, or provides goods for their benefit. Such is the case with the business of Mr. Altred L. Hance, of this city. We will allow him to tell his own story by extracting from one of his letters. It is a double testimonial; first, to the quality of his goods, and second—ye who have anything to sell, make a note of it—to the advantages of advertising in the Philadelphia Photographer. Mr. Hance says:

"Totally unknown to the photographic community, less than three years ago I started out in an humble way to manufacture reliable cottons, collodions, varnishes, etc. I went into the business not without fear and trembling. Not being known by the fraternity, I knew that I had a ladder to climb that was very shaky and unreliable. Tricks and dodges had given photographic men such experience that they handled the new busy bee with masked faces and doubtful thoughts, but thanks to your excellent journal, through my continued advertisements, I have more orders than I can fill promptly. Have made the acquaintance of almost a thousand good, honest, energetic men whom I have never seen (or will never see), except through the medium of Uncle Sam; receive every day letters from parties I cannot visit, and who cannot visit me. Well, in short, please continue my advertisement as usual."

THE CENTRAL MAGAZINE is the title given to a very handsomely gotten up periodical, exclusively the work of ladies. It is the only magazine in the world which can claim such a distinction. It is edited by Miss Mary Nolan and Mrs. Mary Bowen, at 1023 Washington Av., St. Louis. The list of articles is very choice, but the most interesting one to usis a biography of that celebrated photographer, Mr. John A. Scholten, and not only that, it contains a remarkably good photograph of him as its embellishment, together with a splendid description of his new art rooms. Mr. Scholten's enterprise in getting the favor of the ladies is sure to pay him, and we like to see it.

A STEP HIGHER.—From the Yonkers, N. Y., Statesman we clip the following:

"The gallant and generous-hearted Ezekiel Y. Bell has been nominated to represent the first district in the Assembly. He was born in the district, and has been prominently identified with its rise and progress. Mr. Bell is a lawyer in good practice, and a gentleman by instinct."

This is a step forward from being the counsel of the National Photographic Association, and we congratulate Yonkers on its choice of such a Bell-igerent man to represent them in their State Assembly. Elected? Of course he will be.

"REJECTED."—This is the name given to his last "Stereo Treasure" by Mr. F. G. Weller, which represents a country swain standing at the door of his "Dulcinea" in a perplexed mood, etc.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. \$\psi_p\$—We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

For Sale.—\$3000 cash will buy one of the finest and best paying galleries in the State of New York. Everything is new and of the best quality. North, top and side light. Fine counter and show cases, furniture and carpets of the best. Seven large rooms. Chemical and print rooms lead from operating-room. Coal in for the winter and plenty of good stock on hand. Population 20,000. The gallery is the finest in the city. Rent of rooms \$350, including living rooms. Call or address

Binghampton, N. Y.

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.

THE PRACTICAL PRINTER.—It is very gratifying to find this work so generally appreciated. The following, from a letter written us by Mr. J. H. Hallenbeck, of Boston, an old photographer, expresses the sentiments of many we receive letters from:

"The Practical Printer is bound to sell, for it is a most valuable work, and should have a permanent place in every printing room in the country. I notice the oldest printers seem greatly interested in its contents. Benj. Freuch & Co. have a good supply, and have sold many copies."

Here is another from parties whose favorable opinion is never given to anything that has not merit:

PHILADELPHIA, Sept. 12, 1874.

"Through the kindness of John R. Clemons, we have had the pleasure of reading the Practical Printer, and, as far as our experience goes, think it the best work ever published on the subject. We shall take especial pains to recommend to all with whom we come in contact.

"DRAPER & HUSTED."

For Sale.—My patents on Photo. Tent and Trunk, at a great sacrifice. Hoping to save my life, my home, and my family from great suffering induces me to make this effort, as I am now imprisoned and forced to suffering and want. Address, with stamp, for a circular,

I. FLETCH WOODWARD, 27 N. Front St., Nashville, Tenn. Wanted.—August number of the *Philadelphia Photographer*, for 1874. We will pay seventy-five cents per copy, in our publications or cash.

BENERMAN & WILSON.

Griswold's Stereoscopic Compositions. Read advt.

FOR SALE.—At a bargain, my photograph gallery; doing business of \$20,000 a year; strictly first-class work. Prices, cards, \$6.00; cabinets, \$10.00 per dozen. Building is mine, two story brick; lease on ground seven years. Would prefer to sell the whole; would not object to sell one-half interest to right kind of a man. Terms, cash; or good negotiable paper.

C. D. Mosher, 951 Wabash Avenue.

The Robinson Trimmer.—The wheel and shank of this little instrument are the parts that carelessness first breaks, and as we frequently have applications for these parts we have arranged to supply them. The price of the wheel alone, is \$1 00; the wheel and shank, \$1.25. Every one who uses the trimmer should have extra ones of these in reserve.

BENERMAN & WILSON.

Please read the two-page advertisements of Charles A. Wilson, Baltimore Stockhouse, No. 7 North Charles Street. Please remember the number, 7 North Charles St., Baltimore, Md.

For SALE, cheap, if applied for soon. Business chance in one of the best arranged galleries in Delaware. Population of town 3000. No competition. With or without instruments.

Address P.O. Box 208, Smyrna, Del.

FOR SALE.—A well known and paying gallery in the City of Philadelphia, in a first-class location and good chance to increase business. For terms, etc., address A. C. D.,

Care Wilson, Hood & Co., 822 Arch St.

Truly Interesting to every progressive photographer is Nason's advertisement of new Nov elties on another page.

USE WAYMOUTH'S VIGNETTE PAPERS.

OLD BRICKS and bags of short and sand do not enter into the manufacture of the Nason Universal Light Modifier. See advertisements.

For Sale.—The leading gallery in Chester, Pa. The gallery has been established more than five years, and the busniess has been all the time improving, as the city is growing rapidly in population and wealth. It is a rare chance for a good operator who would commence business on a small capital. It will bear investigation. Price \$600. For particulars, address

WM. SNELL, Chester, Pa.

To Rent. — One of the best galleries in Northern Indiana. All on ground floor. For particulars, address W. L. Hoff, Lagrange, Indiana.

Lea's Manual of Photography, \$3.75. See Advertisement. Third Thousand.

FOR SALE OR EXCHANGE.—One No. 7 Voigtlander Tube, and 14 x 17 Anthony Success Box and Plate Holders, nearly new, used but a short time. Will sell cheap or exchange tube for a No. 7 Voigtlander, 13 inch focus. Address

HENRY DOERR, 353 West Market, Louisville, Ky.

For Sale.—The finest fitted up galley in the South, outside of the large cities. In the county seat of one of the wealthiest counties in the state. Population 4000. No other gallery of any consequence in the county. Facilities for making all styles and sizes of pictures. Gallery newly fitted up last winter and new building. Business established ten years. Good reasons given for selling. Address

G. W. Jones,

Lock Box 19, Shelbyville, Tenn.

WAYMOUTH'S VIGNETTE PAPERS.

"I am using and like them very much thus far."—A. MARSHALL, Boston.

"A sensible improvement."—GEO. S. COOK, Charleston, S. C.

OLD APPARATUS FOR SALE.—We would call the attention of photographers to the advantages of advertising in this department anything they may have to sell, in the way of superfluous instruments or apparatus. The cash in your hand is much better than dead stock in your gallery. There are always those who want such things, but do not care to pay the price of new goods, and they naturally refer to this department. Sell off your old stock, we will help you.

BENERMAN & WILSON.

Wanted.—Will take a good 8 x 10 D. S. B view box in payment for a 25-inch Washer In writing give full description of box.

L. V. Moulton, Cedar Rapids, Mich.

CHICAGO, October 19, 1874.

DEAR SIR: The Washer is splendid! Could not do without it. It washes the prints better in fifteen minutes than by the old tank process in all night. Wishing you every success, we remain,

Very truly,

E. L. BRAND & Co.

VOIGTLANDER & SON LENSES.

Ryder's Art Gallery, 239 Superior St., Cleveland, Ohio, Dec. 18, 1872. Benj. French & Co.

Dear Sirs:—Twenty-four years ago I bought and commenced using my first Voigtlander Lens. It was a good one. Since then I have owned and used a good many of the same brand, of various sizes. They were all and always good.

Some of the larger sizes that I have recently bought seem to me better than any I have ever had or seen before.

Yours, truly,

J. F. RYDER.

For Sale.—I will sell for one-fourth cash and balance on time, my gallery located on the best part of Fulton Street, Brooklyn. Newly fitted up and furnished; everything first-class; rooms handsome and rent very low. Address, with real name, X. Y., office Phila. Photographer.

FOR SALE.—An established gallery, favorably situated in Trenton, N. J. Good light and instruments. For particulars, address

A. W. R.,

Cor. Broad and Market Sts., Trenton, N. J.

For Sale.—I now offer for sale my fine Photographic Studio in this city. Population 120,000, location the very best. All on ground floor; operating room 24 x 40, with large top and side light, furnished with the best instruments and boxes, etc. Plenty of room in every department, and every facility for making the best work. Now doing a good husiness. For reasons that will be satisfactorily explained (to those who mean business), I will sell this gallery at one-half its value. This is a fine opening for one who wants a first-class gallery in the best city for business in the United States. Please call upon or address W. C. EATON,

709 Broad Street, Newark, N. J.

USE WAYMOUTH'S VIGNETTE PAPERS.

We are well acquainted with W. C. Eaton and his gallery, and would advise those of our friends who may want a good place to investigate. It is no second rate affair. Yours,

C. J. McCarty, with Scovill Mfg. Co.

See advertisement of Rapid Photo-Washer.

FOR SALE AT HALF PRICE.—One of E. L. Brand & Co.'s largest Cameo Presses (the one on exhibition at Chicago), will be sold at half its cost. Address F. GUTEKUNST.

712 Arch St., Philadelphia.

Criswold's Stereoscopic Compositions. Read advt.

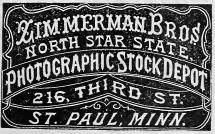
COMPOSITION PICTURES, BY MESSRS. ROBINSON & CHERRILL, FOR SALE.—The beautiful composition and combination pictures exhibited at the Chicago N. P. A., executed by Messrs. Robinson & Cherrill, and for which the Foreign Medal was awarded, are for sale at the following rates: Passing Stranger, \$5; The Gleaner, \$5; Study from Nature, \$5: The Gypsy, \$5; Lady Reading, \$5; Little Girl, \$5. Only one copy each. Specially fine prints. On exhibition and for sale at the office of Benerman & Wilson, Philadelphia.



Wanted.—Agents to travel through the seve ral states. None need apply except practical photographers, and those acquainted with the use of the solar camera. Apply to

H. L. Emmons, Baltimore, Md.

Try Hermagis' Lenses. Used by M. Adam Salomon, Paris. See Advertisement.



SITUATIONS WANTED.

(No charge for advertisements under this head: limited to four lines. Inserted once only, unless by request.)

** We cannot have letters directed to our care unless the parties send for them, and send stamps to pay postage. We cannot undertake to mail them; please do not request it.

By an experienced dark-room man. Is willing to do anything. Good reference. Address G. M. H., 842 Wharton St., Philadelphia.

By an operator of eight years experience, in a good gallery, for the winter. Address A. C. Hoskins, 132 Genesee St., Utica, N. Y.

By a first-class operator, retoucher, printer, and toner. Address M. M. Ormsby, care of L. S. White, 173 East Washington St., Indianapolis, Ind.

As printer or assistant operator. Eight years' experience. H. M. Judd, Box 511, Northampton, Mass.

By a young man as assistant operator or printer. Can retouch. Four years' experience. Best of reference. Address Wisthe Forrester, care of Box 816, Monmouth, Ills.

By a young man as printer and toner, in a first-class gallery. Can do some retouching. Address Dan Drenkel, Jr., Box 81, Oneida, Ilis.

As operator and retoucher. Address W. B. Anderson, 59th St. and Baltimore Ave., West Philadelphia.

As assistant printer and toner, in a first-class gallery. Address Box 242, Skaneateles, Onon-daga County, N. Y.

As operator or retoucher, in some first-class gallery. Address A. K. Semple, 101 Oneida St., Utica, N. Y.

By a first-rate negative retoucher, moderate salary. Address N. A. R., Cherry Valley, New York.

By a capable and thoroughly practical retouching and coloring artist. Address A. W. Sonpher, Pittsburg, Pa.

With a "copying company," by a rapid worker in crayon, oil, water colors, and India ink. Address L. E. Mansfield, Pittsburgh, Pa.

As operator or assistant. Would have no objection to going to the country. Address Thomas A. Foster, Anocortin, Va.

By a good portrait and landscape printer. Can operate, and understands dark-room work. Address H. C., Cherry Valley, N. Y.

By a first-class retoucher and inker, from Chicago, a room to work in a good gallery, in any town of from two thousand to eight thousand inhabitants. Address Retoucher, P. O. Box 255, Angola, Ind.

As negative retoncher. Country gallery preferred. Address J. T. W., care Newman, Artist, 740 Sansom St., Philadelphia, Pa.

By a lady who thoroughly understands the charge of the reception-room, can finish negatives; has no objections to leaving Boston. Address Miss N. Holbrook, Y. L. Christian Association, Warrenton, Street, Boston, Mass.

USE WAYMOUTH'S VIGNETTE PAPERS.

In a first-class gallery, as negative retoucher or colorist, by a competent lady artist. Address Miss H. H., School of Design, Cooper Institute, New York.

In the skylight or dark-room. Am competent to take entire charge. Address F. Waller, care E. Anthony & Co., 591 Broadway, N. Y.

By a first-class operator and retoucher. Will work for small salary if steady employment can be given. Address Photographic Operator, P. O. Box 18, Randolph, N. Y.

By an experienced photographer, that can operate, retouch, print. tone, and work in India ink. Address P. H. Lamping, P. O. Box 645, Lincoln, Ills.

A strictly first-class German operator, fifteen years in the business, and just returned from Germany. Address Mr. Fred. Glueckohardt, in care of Mr. Kurtz, 141 Suffolk St., New York City.

As a general assistant operator, retoucher, printer, and toner. Address Orlando H. Peck, Box 7743 Richmond, Ind.

By a lady, a situation as a good negative retoucher. Address E. L. B., Holtsville, P. O., Suffolk Co., Long Island, N. Y.

By a young lady, experienced in finishing photographs in India ink, water colors, and erayon; on plain, albumen, and porcelain surfaces. First-class reference could be given. Address A. L. M., care G. K. Warren, 289 Washington St., Boston, Mass.

By a first-class operator and negative retoucher. Terms \$80 per month, and board. Address "Operator," care of Box 255, Angola, Ind.

As operator. Is competent to take charge of any gallery. Address Box 68 Corntrie, Iowa.

As reception lady, by a lady of experience, will make herself generally useful about the gallery. Steady employment principal object. Address I. A., Box 896 Tiffin, Ohio.

By a first-class artist in water colors, India ink, crayon, &c. Address Artist, St. Louis, Mo.

By one that has many years experience in the business, wishes to take charge of a gallery, or a place as an operator. Address Harry Sheldon, operator, Cleveland, Ohio.

By a photographer who understands all branches of the photographic business, including the making of frames, window cornices, etc. Also, by a lady who can retouch, color, spot-out or print, but who would like to be in the reception-room; having had two years' experience. Address G. V. Flagg, Photographer, Ovid, Seneca Co., N.Y.

SOCIETY CALENDAR.

(Published for the convenience of Visiting Photographers and those desiring to correspond.)

Fig. This Calendar is published free to the Societies, and we shall feel obliged for notice of any changes in time of meeting or in the officers, also to add any we have overlooked.

Buffalo Photographic Association.—At Buffalo, the first Wednesday evening of each month. J. Samo, President; Jennie M. Crockett, Sec'y.

Boston Photographic Association.—At J. W. Black's studio, the first Friday of each month. E. J. Foss, President; C. H. Danforth, Secretary. 27 Central Square, Cambridgeport.

Photographic Section of the American Institute, New York.—At the Institute rooms, the first Tuesday of each month. H. J. Newton, President; Oscar G. Mason, Secretary, Bellevue Hospital.

German Photographic Society, New York.— At Nos. 64 and 66 East Fourth Street, New York, every Thursday evening. W. Kurtz, President; Edward Boettcher, Corresponding Secretary, 79 Newark Avenue, Jersey City, N. J.

Brooklyn Photographic Art Association, Brooklyn, N.Y.—Fourth Tuesday in each mouth, at 179 Montague Street. Rev. Dr. C. H. Hall, President: Chas. E. Bolles, Cor. Secretary.

President; Chas. E. Bolles, Cor. Secretary. Photographic Society of Philadelphia.—First Wednesday, Monthly, at 520 Walnut Street.

Pennsylvania Photographic Association, Philadelphia.—Third Monday, monthly, at the galleries of the members. R. J. Chute, Secretary, offlice "Philadelphia Photographer."

Chicago Photographic Association.—At rooms of C. W. Stevens, 158 State Street, first Wednesday evening of each month. G. A. Douglas, President; O. F. Weaver, Secretary, 158 State Street.

Maryland Photographic Association, Baltrmore.—At rooms of C. A. Wilson, 7 North Charles Street, first Thursday in each month. N.H. Busey, President; G. O. Brown, Secretary, Baltimore, Md.

Photographic Association of the District of Columbia, Washington, D. C.—E. J. Pullman. President; C. M. Bell, Secretary, 459 Pennsylvania Ave, Washington First Tuesday, monthly.

Indiana Photographic Association.—At Indianapolis, first Wednesday monthly. J. Perry Elliott, President; D. O. Adams, Secretary, Indianapolis.

Photographic Association of Western Illinois.— At Galesburg, first Wednesday of October, Jannary, April, and July. J. F. Barker, President; M. M. Graham, Secretary, Galesburg.

CERMAN ALBUMEN COLORS!

JULIUS KRUGER'S

PATENT CEMENT COLORS,

FOR COLORING PHOTOGRAPHS ON ALBUMEN and PLAIN PAPER.

These colors have become very popular in Germany and France (where they have obtained the highest recommendations), on account of their extraordinary brilliancy, evenness, and easy application. They can be used on Albumen Paper, and are without doubt the best that have been offered to the public. The Colors are put up in boxes of 6, 12, and 18.

GEO. RAU, Sole Agent,

No. 922 Girard Ave., Philadelphia.

HEARN'S COLLODIO-CHLORIDE,

MANUFACTURED BY CHAS. W. HEARN,

Author of the " Practical Printer,"

Is a most excellent Collodion for the purpose of producing, with ordinary care, the most beautiful "PORCELAIN PICTURES." It is prepared upon an entirely NEW principle, which renders it a MOST VALUABLE AID in the production of this much admired style of print. Among other merits, it possesses the following, viz.:

- 1. It has most excellent keeping qualities.
- 2. It yields a very brilliant, strong print, yet one possessing the most velvety softness throughout the high-lights and shadows, together with the intermediate half-tints.
- 3. The most beautiful tones are attained with the greatest facility.

Full directions accompany each bottle.

Every bottle warranted. None genuine unless the fac-simile of the manufacturer's name is printed on each label.

TAKE NOTICE.—Mr. Hearn having arranged with Alfred L. Hance, manufacturer of Hance's celebrated Photographic Specialties, to conduct the sales of his Collodio-Chloride, dealers and others should direct their orders for it to

> ALFRED L. HANCE, 124 N. 7th St., Philadelphia, Pa.

PRICE LIST

of

DIES.

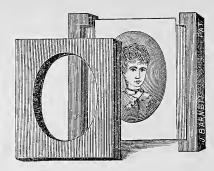
Card Oval,		\$4	00
Imperial Ova	ıI,	8	0.0
" Arc	h Top	8	00
5 x 7 Oval,		12	00
5 x 7 Double	El'pto	, 12	00
8 x 10 "		18	00
8 v 10 Ovol		18	0.0

FOR MAKING THE GLACE, OR SOUVENIR PICTURE WILL BE SENT BY EXPRESS,

BARNETT'S PRACTICAL PROCESS

GELATINE, PLATE PAPER, Etc., furnished at the lowest market rates.

C.O.D., Price, \$5.00.



COPYING PRESS,

Suitable for above work, furnished at the following prices:

9 x 12	bed	,\$6	00
10 x 13		7	00
10 x 16	66	10	00
12 x 18	"	12	50

BARNETTS

PATENT

GAIMDE O

DIES,

For EMBOSSING, GLACE and other Photographs. This DIE is beyond doubt the best ever offered to the trade; having many advantages over all others in the market. The FIRST, and great advantage is (for the Glace's), that you can mount and emboss at the same time, thereby saving much time, both in making and mounting; by this process you have a solid picture, and one which will keep flat, which advantage is by no means to be lost sight of, as you can save at least 50 per cent. in stock and labor, besides making a perfect picture. SECOND.—This Die is so constructed as to gauge the picture without injuring the same; this you will find to be of great importance. THIRD.—The plate is made of metal, and nickel-plated, insuring at all times perfect work, while those made of wood are sure to warp and injure the picture. I have spent much time and labor in perfecting these Dies, not alone for the Glace Picture, but for all other photographs which you will find much improved by embossing.

REFERENCE TO THE FOLLOWING PARTIES, WILL SUFFICIENTLY ATTEST THE SUPERIORITY OF THESE DIES:

W. KURTZ, New York, B. GURNEY, "

E. W. BOGARDUS, New York, A. N. HARDY, Boston, Mass., BROADBENT & PHILLIPS, Philadelphia, Pa., J. LANDY, Cincinnati, Ohio, J. F. RYDER, Cleveland, "

AND MANY OTHERS.

Direct your orders to

JOHN BARNETT, 585 BROADWAY, N. Y. Also, a very nice style of CASE, for Imperial Pictures. Per dozen, . which is highly prepared and ready for use, in half-gallon bottles. Per bottle, recommended by all parties now using it. Per lb., \$2.50 and

keep constantly on

hand, a

superior

COLLODION

for the GLACE

PICTURE

2.00



Since exhibiting the above-named stand at Chicago, we have made two important improvements, viz: The addition of 12 round rubber rollers to the interior of the verticle triangle, which does away with all friction, and makes the movement perfectly noiseless. Also, an entirely new mode of chang-

ing the angle of the top instantly, and leaving the same in a perfectly rigid position.

Our wheels, which are thirty inches in circumference, are adjusted in a manner peculiarly our own. Each stand is fitted with a "swing" drawer for diaphragms and other paraphernalia. And last, and the most important of all, is our new INSTANTANEOUS NON-AGUE BRAKE. Everything about it is A No. 1.

The "NON-AGUE" is the only Camera Stand in America that combines the three requisite points which are absolutely necessary to form a perfect machine, viz: FIRMNESS, COMPACT-NESS, and RAPIDITY of movement. ONLY \$30.00.

DECIDEDLY THE BOSS.

THE NASON

UNIVERSAL LIGHT MODIFIER,

Upon its presentation to the trade, instantly monopolized popular favor. And, why not, when it so far excels every other invention for a like purpose?

Just as sure as the sun will shine, just so sure will the N.U.L. M. supersede all the cumbersome "hand screens" wheat screens" and "Foot screens" in the market; for it is exactly what its name indicates, viz: UNIVERSAL LIGHT MODIFIER. Universal in movement, universal in adaptation, and at which the universal host sent up "a shout in praise."

It is the first and only modifier or screen which takes up no room; it being attached directly either to our background carriage, or any back-ground in the studio, and may be changed from one to another without a moment's delay. There are no bacs or souther without a moment's delay. There are no bacs or souther without a moment's delay. There are no bacs or souther without a moment's delay in the light of the property of the

OVER 800 IN USE!

THE NASON **Back-Ground Carriage**

Is so well known, that it needs no special notice here. We would only call your attention to the NEW FORM now being made, which is a combination of the popular Back-Ground Carriage and the Universal Light Modifier; an invention which every progressive photographer most certainly needs, and both of which costs only \$12.00.

FOURTEEN IN ONE.

We hardly think there can be found in the whole world, another piece of furniture of like cost, which will afford the photographer more profit, and his patrons as much read pleasure and satisfaction, as will one of our beautiful MAGIC MIRRORS. Your lady patrons are simply fascinated with this extremely charming adjunct to the Toilet-Room, and how could it he otherwise, when hy its use they are given such a perfect FRONT, BACK, and SIDE view of the FULL FIGURE. We manufacture several styles. The one most used hy photographers, costs \$25.00.

SUCH A THING CAN BE POSSIBLE, THE

NASONIAN CUT-OUTS

Are still gaining in popularity. The demand has kept steadily ahead of the supply. We shall soon be ready to fill orders for the large sizes.

PRESENT PRICES ARE: Case No. 1, \$2.00; Case No. 2, \$2.50; Case No. 3, \$3.00.

Will send the three Cases, post-paid, on receipt of \$7.00. For particulars read July, August, September, and October "Philadelphia Photographer," and address all orders to the

NASON NOVELTY COMPANY, COLUMBUS, OHIO.



WE HAVE BEEN APPOINTED

AGENTS FOR THE SALE OF MESSRS, E. L. BRAND & CO.'S

Patent Improved Presses,

FOR MOULDING THE

SOUVENIR PHOTOGRAPHS,

Which they will furnish at following prices, including instructions:

No. 1—Card and Cabinet size, or two Cabinet	No. 2-Card Cabinet and 61/2 x 81/2,\$50 00
dies,\$25 00	" 3-Card Cabinet, 8 x 10, 10 x 13, 13 x 16,100 00

WE KEEP IN STOCK

Extra Fine French Gelatine, \$1.25 per pound,
Bevel Edge Card Mounts, \$7 per 100,
Bevel Edge Cabinet Mounts, \$12 per 100.

Card Glace Boxes, \$8 per 100, Cabinet Glace Boxes, \$12 per 100, Pure Gum, 25 cents per ounce.

WE HAVE ALSO IN STOCK

FRAMES, MATS, AND PASSEPARTOUTS, FOR THE "SOUVENIR,"
AND "GLACÉ" PORTRAITS."

Shall hereafter keep in stock NASON'S BACKGROUND CARRIAGE, price, each, \$5.00. NASON'S BACKGROUND CARRIAGES (Sky Shade), price, each, \$12.00. NASON'S CAMERA STAND, price, each, \$30.00. NASON'S CUT-OUTS (three sizes), per case, \$2.50. NASON'S REFLECTING MIRROR, price, each, \$25.00.

REYNOLD'S LIQUID WATER COLORS, put up in boxes containing 12 colors. Price, per box, \$1.20.; per bottle, 15 cents. They are unsurpassed for brilliancy, durability, etc., and we advise their purchase.

The demand for ENTREKIN'S OSCILLATING ENAMELER induces us to again publish for Each Press is supplied with Gas Burner or Alcohol Lamp (as the purchaser prefers), a sheet of Crocus Cloth for polishing the Burnisher, and one cake of soap for making lubricator. Size, 6 inch, \$25; 10 inch, \$40; 14 inch, \$50; 18 inch, \$75.

WILSON, HOOD & CO.,
PHILADELPHIA, PA.

Orders solicited.

SCOVILL

MANUFACTURING COMPANY,

Nos. 419 & 421 Broome St., New York,

WHOLESALE DEALERS IN

PHOTOGRAPHIC STOCK

DEALERS SUPPLIED

On the Most Advantageous Terms, with

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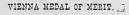
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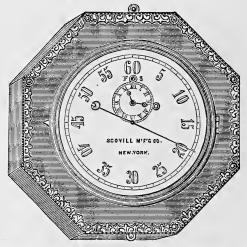
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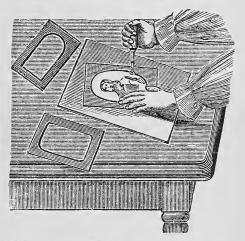
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- 6. Norman Room, west.
- 7. " " east.
- 8. Ionic Room, west.
- 9. " " east.
- 10. Lobby to the Grand Chapter.
- 11. Main Hall,
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- 13. Grand Stairway to the Main Hall.

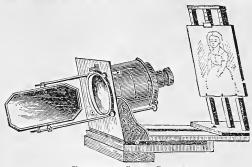
- 14. Egyptian Room, west.
- 15. Grand Lodge Room, west.
- 16. " " east.
- 17. " " south
- 18. Banqueting Room.
- 19. Exterior View of the Temple, south.
- Parade of Knight's Templar, September 30, 1873.
- 2349. Exterior View of the Temple, west.
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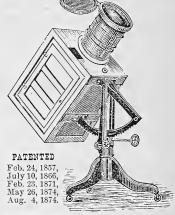
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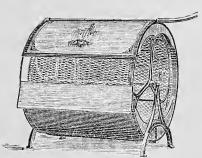
10	inch	diameter	Condensing	Lens,	will print	picture	18 x 23 i	n.,					\$1	90	0.0
12	"	6.6	6.6	"	4 4		25 x 30 4			٠.			. 2	220	00
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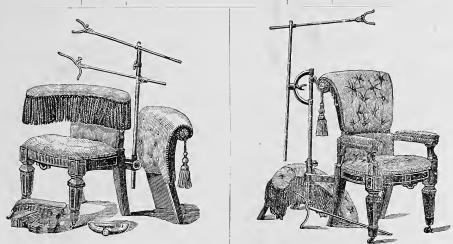
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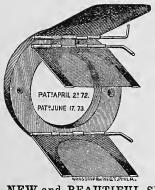
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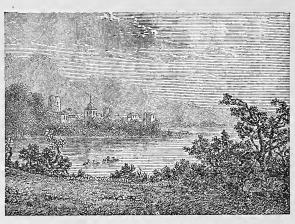
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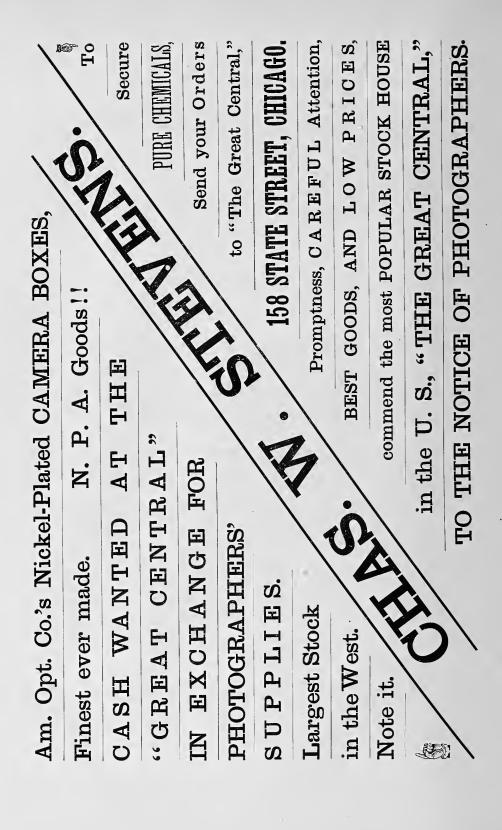
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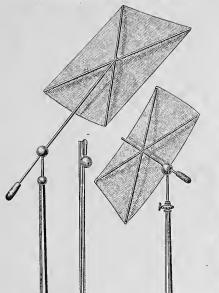
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PATENT

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Illustrated and described at length in Anthony's Bulletin, July, 1874. Exhibited before the Chicago Comention, in connection with a lecture on "Mechanical Appliances for Governing the Light," illus-trated with various models. (See published proceedings).

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The prophesy is made by those cmploying the apparatus, that it will eventually supersede all other arrangements for lighting the sitter, because cheaper, more immediately effectual, and adapted to alt circumstances. It attaches to the top of any head rest, weighs two and a-half pounds, costs \$5.00, and packs up four feet long, averaging one inch diameter. It is not a "light modifier," but a "light controller." Its motions are as free and unlimited as those of a common hand screen, but it remains fixed in any position when the hand lets go. It saves half the necessary retouching, and corrects all the faults of a defective light—except leaking. No other apparatus will accomplish what this will.

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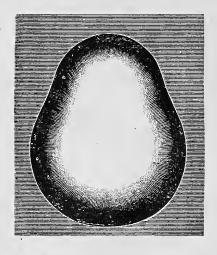
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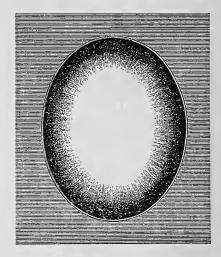
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Instantaneous Doublets, all sizes.

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8	 10 x 8		. 12 x 10		13 x 11		10		 72 00
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Numerous testimonials pronounce them to be the best, as well as the cheapest Foreign Lens ever offered to the American Photographer.

We will mail price-list on application, and promptly fill all orders.

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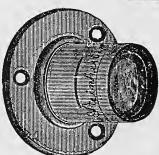
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Nos. 1 and 2 are in matched pairs for Stereoscopic Work.

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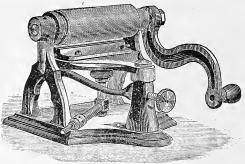
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OFFICE, S. W. COR. OF SEVENTH AND CHERRY STS., PHILADELPHIA.

THE ENTREKIN BURNISHER PATENTS.

THE OPINIONS OF **EMINENT** COUNSEL GIVEN THEIR FAVOR.



THEIR VALIDITY **ESTABLISHED** BEYOND DOUBT

Patented May 20, and December 2, 1873.

TO DEALERS AND PHOTOCRAPHERS:

The proprietor of the Weston & McDonald Patent for a Photographic Burnisher having advertised that he has prosecuted all the photographers and dealers in photographic stock in the New England States who are making, using, or selling the Entrekin Oscillating Enameler for Burnishing Photographs, I take this method of informing the trade and the public that there is no foundation whatever for the statement referred to. I have guaranteed the validity of my patent to all who make, sell, or use it, and have covenanted to defend them against any and all suits for infringement by the following guarantee:

"WHEREAS, —— has purchased Photograph Burnisher No. — of my invention, and made under my Patent, No. 145,161, granted December 2d, 1873, I, William G. Entrekin, hereby covenant and agree to warrant and defend the said —— his heirs, executors, administrators, and assigns, in the use of said Burnisher, against the consequences of any and all suits for infringement which may be brought against him, by the owner or owners of any other Photograph Burnisher whatsoever.

"IN WITNESS WHEREOF, I, the said William G. Entrekin, have hereunto set my hand and seal this —— day of —— A.D. one thousand eight hundred and —— "Witness ——."

Threats for the purpose of intimidation have been freely circulated, but only a single suit has been brought, and that was commenced at my invitation, in order that the question of the alleged infringement might be settled by the adjudication of a court. I deny that my patent infringes the patent of Weston & McDonald in any particular, and in support of that denial cite the following opinion of eminent counsel:

Washington, D. C., Friday, June 5, 1874.

DEAR SIR: Yours is just received. You need not fear any trouble from any parties in regard to the Weston Machine. Your Burnisher does not infringe with any feature of the Weston Machine in the least particular. You can, therefore, manufacture and sell your machines with impunity.

Yours truly, urs truly, C. M. PARKS,
Attorney-at-Law and Solicitor of Patents, Late Examiner in Patent Office.

STANSBURY & MUNN,
Attorneys and Counsellors-at-Law, and Solicitors of American and Foreign Patents,
Washington, D. C., August 7, 1874.

W. G. Entrekin, Eso Sir: I have examined reissned Letters Patent No. 5281, granted February 11, 1873, to Weston & McDonald, and your Patent No. 145,161, of December 2, 1873, for Photograph Burnishers, and am of opinion that your Burnisher does not infringe the Weston & McDonald Patent.

Chas. T. Stansbury.

WILLIAM G. ENTREKIN, Esq.

Philadelphia, September 3, 1874.

Having examined Letters Patent No. 145,161, dated December 2, 1873, to William G. Entrekin, for an improvement in burnishers for photographs, and also reissued Letters Patent No. 5281, dated February 11, 1873, to E. R. Weston and T. McDonald, for a similar invention, I am of opinion that burnishers constructed according to the Entrekin patent do not infringe the patent to Weston & McDonald.

Yours truly,

Challenger of the patent of the pate Yours truly, GEO. HARDING, Attorney-at-Law.



EXCELSIOR!

The Scovill Gold Medal was awarded by the National Photogra-phic Association of the United States to W. G. Entrekin, for his Oscillating Enameler for Burnishing Photographs, Chicago, July 16, 1874.

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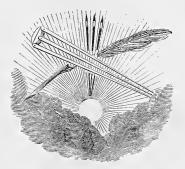
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DEVOTED TO PHOTOGRAPHY.

THE OFFICIAL ORGAN OF THE NATIONAL PHOTOGRAPHIO ASSOCIATION OF THE UNITED STATES.

EDITED BY EDWARD L. WILSON.

December, 1874.



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LESCHER & PETSCH. A New Invoice of Studies.

MAGEE, JAMES F. & Co. Photographic Chemicals. McAllister, W. Mitchell. Manufacturing Ontician,

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Philadelphia Photographer,

For 1875.



HE Volume of the Philadelphia Photographer for 1875, will be the most beautiful and useful that has ever been published. The publishers are determined not to be excelled by any other periodical in the world. Their long experience and their wide connection at home and abroad with the leading spirits in the Art, enables them to obtain the earliest and best things that are from time to time made known in all parts of the world. Unless we can be first and best in all matters which turn up for the benefit of our subscribers, we shall relinquish all claims to their consideration and patronage. Ours is the only Photographic Magazine in America which is exclusively in-

terested in the welfare of its patrons; no private interests; everything given is for the good of the whole fraternity, and carefully prepared. No sugar coating.

In addition to a monthly feast of practical hints and suggestions from our own home workers, our foreign subscribers and correspondents will not fail to keep us posted on everything going on among them, so that we shall hear monthly from France, England, Belgium. Prussia, Italy, etc., etc.



Will include a number of foreign specimens which will surprise you when you see them. But none the less elegant will be those from negatives by our own native artists, Our January issue will contain a splendid portrait of WM. H. RULOFSON. Esq.. President of the National Photographic Association, to be followed by other splendid subjects. In fact, in every respect, we shall try to excel anything we have ever produced before. The subscription price will remain at \$5 per annum, and include the postage.

As we are compelled to prepay the postage, the magazine will not be sent to any but those who pay their subscription in advance.

THE EXTRA ATTRACTIONS

Which we shall add to our new volume will cause us considerable outlay, and we must, therefore, necessarily *increase our expenses*. This being so, we are compelled to look for MORE SUBSCRIBERS. It would cost us to obtain 500 new subscribers, through news agents and stock-dealers, and by means of premiums, etc., at least \$500.

We have, therefore, decided not to offer 15 cent chromos as premiums, but to make to our present subscribers, or to those who may become such by July 1st, 1875, the following

MAGNIFICENT PRESENTS!

A-1 C	ash P	reser	nt, .																		\$	100	00
$\mathbf{B}-1$																						30	00
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G-13	copies	Dr.	Voge	l's	Ha	no	1-1	Во	ok	ζ, :	2d	е	dit	tio	n,	\$	3.8	5O	,			52	50
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A is to be given to the one who sends us the largest number of new subscribers for one year, at \$5 each, in advance, by July 1, 1875; B to the one who sends the next largest number, and so on with the whole hundred presents to the end. Those who send only one will be entitled to one dollar's worth of our publications.

- In seeking to extend the circulation of the *Photographer*, its publishers find that the best agents they can interest in the work are its subscribers, who know its character and can speak intelligently of its merits.
- For this reason they offer inducements ONLY to subscribers, to use their influence and to spend their time in its bebalf.
- **These inducements** are in the form of presents and of premiums, which are simply given as payment for work done.
- Although the presents and the premiums are very costly and valuable, and may seem to some persons extravagant, yet they present what seems to us the best way of paying commissions for new names; and all papers are obliged to pay commissions for this purpose, or to employ agents at heavy salaries.
- We must do as others do, in order to secure a large circulation for the *Photographer*, for its price is so low,

- and its publication is so costly, that it could not live a year unless it had a large subscription list.
- The gifts that we offer will be given to the one hundred subscribers to the *Photographer* who send us the largest number of new names by July 1, 1875.
- The Presents are given to subscribers, not to newspaper club agents or dealers, for the reason that their business gives them facilities which a regular subscriber does not possess, and it is not just, therefore, to place an ordinary subscriber in competition with an organized business. We wish the presents to be received by regular subscribers to the magazine scattered all over the country, who can only devote intervals of their time to the work, and who will find the presents useful.
- **The Premiums** are given alike to all full-paid subscribers to the paper, whether newspaper agents, dealers, or not, who send us *new* subscribers.

Those who prefer it can have the equivalents of their Presents in any other works published by us.

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- Renew your own subscription for 1875, in order to make yourself eligible to a share in our offer of presents.
- 2. Get your operator, and printer, and retoucher to subscribe, or give it to them.
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 Try your co-workers in the same town or city with you, or wherever you know them to be. Spend a few hours writing postal cards.
- 5. Get your wives and employees to help you.
- Try all your Public Libraries, and Literary Societies, and Reading Rooms, etc. Ask
 everybody. A little effort will pay, and enable us to give you a better Journal, besides thus paying you double.

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BENERMAN & WILSON,

PHILADELPHIA, PA.





Philadelphia Photographer.

Vol. XI.

DECEMBER, 1874.

No. 132.

Entered according to Act of Congress, in the year 1874, BY BENERMAN & WILSON, In the office of the Librarian of Congress, at Washington, D. C.

A Last Word for and before 1875.

WE will not burden you with as long an article as usual at the close of the year, for as we grow older we learn to be more brief and more earnest. Eleven years have now come and gone since we took up the pen in your behalf, and we hope to enter upon the twelfth with all of you upon our subscription list, and many more. Shall we not? We know that times are not as we would like to have them, yet we believe you need us and we do need you, so we shall work on. We have been some months preparing good and useful things for you, because we believe it to be our duty as well as yours to try to produce better work each year than that made the year before. You may therefore look for improvements, both in the reading matter and in the pictures. As to the latter, we hope to make an announcement presently which will delight and profit you. Our January issue will be decorated with a fine portrait of William H. Rulofson, Esq., the President of the National Photographic Association. It will be followed by pictures from Mr. Alva Pearsall, and other American artists, and from other negatives already in hand by Russian, French, and German artists of the highest repute.

Our pet project of enlarging our number of pages we haven't yet been able to carry out, but the prospects are good for it, doubtless during this year. We repeat our "Red Letter Sheet" this month, and beg you to peruse it. It interests every one of you. If our presents have the effect we believe they will, there is a good prospect ahead for us all. Please do all you can, and do not forget your usual present to each of your employés of a year's subscription to our magazine and some of our books.

Remember that the Philadelphia Photographer will cost you less this year than ever before, since 1865, for the reason that we prepay the postage, and you have none to pay on it. This is a direct tax upon us, but we hope your additions to our subscription list will make it up.

ORDER SHEETS.

PLEASE look over the order sheet which we send you between our pages this month. Burden them with orders. Inclose your money orders and drafts in them now, and send them to us early, that no delay may occur in your prompt reception of the January number. It will contain some splendid things which you cannot afford to be behind your neighbor in receiving. Many of our subscribers have not waited for a hint, but have already sent in their subscriptions with many words of good cheer. Here is an extract from a letter from

0.

myself the pleasure of seeing many persons, and places, and things which I had set my heart on seeing. So I ignored the "sights" of London, and devoted my time entirely to the collection of matter which I hoped would be interesting to—you.

To London and its adjacent cities photography is vastly in debt for some of its greatest advances and for some of its grandest productions. There are many men living there now to whom too much credit cannot be given for what they have done in behalf of photography. I have not space to name them now.

In the various photographic printing processes, London is far in advance, and the carbon, Woodbury, and different forms of the photolithographic are perhaps more largely practiced here than anywhere else. And of course the most ingenious of these, and the one producing the best results on paper and glass, is the Woodbury process. It has been described to you, and examples have been given you, and if you visit Philadelphia, under the superintendence of Mr. J. Carbutt you may see it in active practice at No. 624 N. Twenty-fourth Street.

I visited the works in London in company with the inventor of the process, Mr. Walter B. Woodbury, to whom I owe much for his courtesy to me, and found them doing a large business and producing capital results. The most curious, though not the most beautiful, part of this process is the printing A revolving table bearing six presses is "run" by one printer, and the form of the table and the presses is shown in our figure. The lead mould is laid upon the bed of the press; upon the mould is poured a "puddle" of warm ink, the paper laid upon it, and the top of the press brought down and fastened upon the whole. The table is then revolved so as to bring the next press before the printer, and so on until the six are filled. By the time the sixth one is filled, the print in the first is set ready to be removed, and so on all day long. Mr. Woodbury certainly is entitled to the credit of the most wondrously beautiful method there is of producing pictures of any kind. His invention is an invention, and how wonderfully he has improved it since his first crude results were shown to the public! I trust he may yet make a large fortune from it. He is one of London's quietest, nevertheless one of her most industrious and useful,

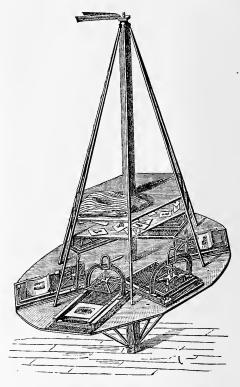


photo-experimentalists—always at or after something, and generally with some effect.

A visit to his mansion at Greenhithe, one of the beautiful suburbs of London, was one of the great pleasures of my journey. He has a complete laboratory and studio there for working his own and other processes, and I found many things of interest to be seen. I also met there Mr. J. Trail Taylor, editor of the British Journal of Photography, a "jolly Scot," and of course a man "well up" in his profession. Of him, more again.

The carbon process is more largely worked in London than anywhere else, except by M. Braun, in Dornach. It has had many ups and downs since its birth, but I found it in most successful operation under the management of Messrs. Spencer, Sawyer, Bird & Co., at their extensive works at Ealing Dean, which I visited in company with Mr. J. Stuart, business manager of the

Ross Lens manufactory. I found the works most extensive, and matters being driven with the greatest energy. Of course, with Mr. John Spencer at the head, things must go. Both the single and double transfer processes are used, and the tissue used is made by the company, in a manner similar to that described in the account of a visit to Mr. Braun. The tissue is cut into lengths of 13 feet each, as it comes from the pigment pool, and hung up to dry. Works of art are here reproduced on the most extensive scale, and so very beautiful they are! Some of the negatives used are immense. I saw one 48 inches by 36 inches, and weighing seventy-five pounds. The negatives are kept in a fire-proof room. Enlargements are made here for the trade very extensively, and the results are superb. company also supplies licenses for working the process, and all the material requisite. But carbon printing is too expensive for all sorts of work, and resort is had here also to photolithography. In the rooms devoted to it, I saw a very busy scene-many presses in operation-and all through, the appearance of thrift, enterprise, and success. In several other places these processes are worked, but not to so great an extent. Among the most popular methods is the heliotype process of Mr. Edwards, but the best market for it is found here, under the care of Messrs. J. R. Osgood & Co., Boston.

Last month I promised to take you to a manufactory of photographic lenses, in which I had only a common interest, and this brings us to the world-renowned and justly famed works of Messrs. Ross & Co., in Wigmore Street, London. I do not remember ever having visited such a model establishment as this. Neatness and good order and cleanliness prevailed throughout, and I inspected the whole establishment with intense interest and satisfaction.

It is not too much to say, that in every part of the habitable globe in which science has obtained a footing, there is the name of Ross, of London, known. The great optical establishment of Ross was founded by Mr. Andrew Ross, about half a century ago, since which time it has steadily increased, both in scope and magnitude, until at pres-

ent it stands unrivalled, either for its extent or the completeness of its appliances.

I was conducted throughout this great hive of industry by Mr. Stuart, while all the workmen were being busily engaged in the fabrication of those optical productions which have acquired such worldwide celebrity, and to have such a privilege was to enjoy a treat that will not soon be forgotten; and, in order that my photographic readers may share with me in some small degree, if not the pleasure, at least the profit I derived on the occasion of that visit, I transcribe for their benefit a few of the notes that were then made; and as it is in the manufacture of photographic lenses that photographers will doubtless feel most interest, I shall, for the most part, confine my observations to the production of this class of work.

It is a matter of primary importance that the glass of which achromatic lenses are made is of the utmost purity. Up to within a recent period, the production of large disks of optical glass so free from defect as to render them adapted for achromatic lenses, was looked upon as impossible; for even with the greatest skill, and by using the most perfect appliances of the period, defects of a nature fatal to excellence were inherent in optical flint glass. These defects, to which the best flint was especially subject, consisted in a want of homogeneity and in the presence of striæ, knots, threads, and other defects of a similar nature. This difficulty in the way of obtaining optical glass, except in bits of very small dimensions, proved a serious detriment to the advancement of those arts and sciences in the development of which large lenses were required; but upwards of seventy years ago, M. Guinand, a Swiss clockmaker and amateur optician, having built a furnace in which to make his own glass, succeeded in solving the problem that till that time had engaged the attention of numerous men of science, and practical glass-makers. The fame of the excellence of his productions rapidly spread abroad, and M. Guinand soon emerged from the position of an obscure clockmaker, into that of a man by whom science was to be materially benefited, and his society was courted, especially

by the leading opticians of the time. Although Guinand's discovery has thus opened the way to the successful production of large disks of optical glass, yet is the price of such glass, even in its rough form, very high. This great expense connected with the glass alone partly accounts for the high price of large lenses; for no optician who has a reputation at stake would jeopardize or rather ruin it by using glass of an inferior kind. In the homogeneity of the glass alone, as well as in workmanship, will be found the difference between the productions of the high class and the second rate optician.

Before a disk of glass is sent into the grinding shop it is subject to critical examination, to permit of which, two small portions of the edge, opposite to each other, are ground flat and polished. A beam of polarized light is now transmitted through the disk, which is then examined by an analyzing prism. In this way can be detected the slightest deviation from uniformity in the density of the glass, a deviation which would insure its being rejected. Now we are where the rough and hard work is done, and as each stage progresses, there is less hard work for the muscles and more for the brain. After the optical glass passes muster, it is cut into pieces of proper size by the "splitting" machine, diamond dust being used for the persuasive power.

In the grinding of a lens, the first opera-



tion consists in "roughing" it or bringing it approximately to the curvature it is ulti-

mately to assume. The adjoining cut shows in which way this is effected. Cast-iron blocks turned to an appropriate degree of curvature, either concave or convex, according to the nature of the surface, together with coarse emery and water, form the tools-required at this stage. When the glass is handed to the rougher it is round in shape, although the edges are rough, having previously passed through the hands of another staff of workmen, who chip the glass into something near the size required.

After the first rough grinding has been effected, the embryo lens then passes into the hands of the "lens grinder," whose function it is to follow up the work of the rougher, until the surface is brought up to that exquisite degree of polish seen in the best lenses, and to effect which a great degree of care and skill are required. Instead of the cast-iron curves used in roughing, the tools now must be gun metal or brass, having their curvatures adjusted with the utmost nicety, for upon the accuracy of the curve in which the lens is ground depends its figure and subsequent performance. Six changes of emery, from the coarsest up to



the finest, are employed in succession, until the surface has been brought up to the most exquisite degree of smoothness, although as yet devoid of gloss or final polish. In this work the curved tool is attached to the top of a post, around which the workman slowly walks, grinding the lens by the pressure of both hands. Not only must he by walking round the post change his own position with respect to the grinding tool, but he must also constantly change the position of the lens in relation to his hand, as he sweeps it over the surface of the tool. In this way is avoided such errors of figure as would invariably occur if these precautions were not taken.

The piece of glass which is to serve as one of the lenses of a combination, is cemented to the centre of the "tool," and around it are cemented six other pieces of glass called "pads." These are subjected to the same amount of grinding, but are of no use except that they serve as bearings to insure the exact grinding of the centre piece. Thus it will be seen that a photographic lens is actually the centre part of a large lens.

Very often a number of small lenses are ground at once on one tool. For example, I saw seven compound stereograph lenses being ground in this way. In no other way could they be made more cheaply than larger lenses, for the amount of work upon them is just the same. The grinding-posts must be level to a degree, or errors will constantly occur.

Having been ground to a true curve the next and final operation, so far as the surface of the lens is concerned, is to bring it to a high degree of polish or gloss. Exceptional care is required in doing so, for the metal tool hitherto employed with its hard and unyielding surface must be supplanted, so far at least as the mere surface is concerned, by something of a softer nature, and hence arise increased dangers in impairing the perfection of the figure obtained by the grinding.

By many opticians thin felt or cloth with the nap worn or seared off is employed for polishing, and where the highest degree of excellence is not required it answers well. It is effected by coating the face of an iron tool with cement, laying upon this, while hot, the cloth, and then pressing upon the latter with a metal curve or tool the exact counterpart of that in which the lens was ground. The cloth is then charged with putty powder moistened with water, and upon this the lens is polished. This method

has long since been discarded by the house of Ross in favor of one which gives more perfect results, and without which it would indeed be impossible to produce lenses, especially of small size, having the perfection of form required in some of the most delicate lenses, such as microscopic objectives, or the symmetrical photographic combinations which are so rapidly superseding other forms of lenses for landscapes, groups, and architectual subjects. These receive their final polish in tools faced with a specially hardened kind of beeswax into which is imbedded the polishing powder, and which gives the utmost degree of polish without allowing the figure to be impaired.

The lens is now finished in all but the "edging," which is of almost equal importance with the proper grinding of the surface, because on the edging of a lens depends the correct centring of the combination. To effect this the lens is cemented to a chuck in a turning lathe, and while revolving it is centred accurately by watching the reflection of a lighted candle thrown



from the surface. Advantage being taken of the soft state of the cement to bring it to such a state as to show, while revolving, the image of the flame quite stationary and free from the "wobble" it would have if it were not properly centred. When the cement is hard, a workman slowly brings in contact with the revolving edge a piece of metal charged with emery and water, by

which the asperities are removed and the edge made square and accurate. The engraving represents the "edger" holding a small metallic cup in his hand, wherewith he is finishing the edge of a lens that has been ground true.

The number of tools or curves in this establishment is very great, consisting of upwards of two thousand, all of them being ground with such accuracy that the curvature of each is known to the fourth place of decimals, their respective radii extending from 30 feet down to .01 inch (a hundredth of an inch). The curvature to which any particular lens is to be ground is calculated mathematically to suit the refractive and dispersive ratios of the glass of which it is to be formed; and after the lens is finished, if, on examination, it fails to come up to the standard of sharpness, the particular surface which exercises control over the shortcoming is reground in a tool one degree deeper or shallower in curvature to suit the requirements of the case. most intense sharpness is insisted upon as a sine qua non in this establishment, no portrait lens being allowed to pass into stock unless it can produce a picture with open aperture sufficiently sharp to bear a large degree of magnifying. Such an idea as "diffusion of focus" is not recognized, the reason assigned being that if once a lens is made that will produce absolute sharpness, perfection of definition can at will be destroyed in any special case by the mere interposition of a transparent pellicle, or even a sheet of homogeneous paper, between the negative and the print, the latter of which will thus possess that quality known as "diffusion," although from the very same negative may be obtained an enlargement of the greatest sharpness and perfection.

One large shop in this factory is devoted to brass turning and fitting. We show in the cut one of the numerous workmen engaged in making the mount of one of the new small symmetrical lenses. In this kind of lens the Messrs. Ross have effected a reformation that has for a long time been much desired by photographers, viz., the reduction of the diameter of the lenses to the smallest possible size, and the causing of the whole series of twelve to screw into one

flange, one cap also fitting all of them. This series of lenses consists of twelve separate combinations, all, as I have said, of the same diameter in mount, which, by the way, is very small, owing to every superflu-



ous portion of glass being removed from the lenses, which are thus reduced to scarcely more than the size of the stop. Their foci range from 3 inches to 21 inches, a lens of the latter focus covering a plate 21 x 25 inches. So small and light are they that a photographer may without any inconvenience carry several of them in his pocket, and screw into his camera any one of them which from its focus is best adapted for the representation of any special view. would be well if this system of having one standard flange for all lenses up to a certain size were more prevalent, for it would prove a boon of inestimable value to photographers. The system of universality of screw has for many years been in use in connection with the object-glasses of microscopes, and no matter now in what countries either microscopes or objectives may have been made, all are fitted to one gauge. varying diameters of photographic objectives will ever, of course, prevent the adoption of one individual flange for all purposes; but what can and ought to be done is the adoption throughout the world of a series of flanges, as few as possible, of recognized and standard sizes. Notwithstanding the small dimensions of the symmetrical lenses, they work with greater rapidity than those of large size, when used under similar circumstances of lighting and aperture.

The racks used for portrait lenses are toothed in the solid, so to speak, and are sawn asunder afterwards, three dozen being made at a time.

The cutting of screws in the tubes, cells, and flanges, is effected both by hand and by mechanism attached to the turning lathe, the special mode to be adopted in each case being determined by the size of the article. The screwing of the tube of a lens of ten or eleven inches in diameter would never be undertaken by hand alone; while on the other hand the services of the lathe screwing machine would never be had recourse to in the case of a small "symmetrical" lens.

When two achromatic lenses are to be mounted, they are first of all placed in a trial mount so adapted as to permit of an approximation or separation of the lenses. The test object is a watch dial placed at the extreme end of the testing-room, and the image of this dial is examined through a powerful eyepiece. Unless it can divide the closest lines upon this dial the lens is rejected. In this trial, both the central and oblique pencils are examined, and the exact amount of separation of the lenses from each other is now determined by experiment and marked upon each pair, as the instructions for the workman to whom is intrusted the duty of the final adjustment of the length of tube, an operation which influences materially the performance of the lens, when it is considered that so nicely poised are the qualities in some of the combinations of more recent production, that a deviation of a fortieth part of an inch from the exact distance required, and determined in the way described, will affect its performance and be detected by the manager in course of the final trial, which is made after the lenses have been finished.

The consulting engineer of the firm of Ross & Co. is Mr. F. H. Wenham, who has apartments upon the premises. Most of the modern improvements in the microscope owe their existence to the genius and executive skill of this gentleman, who, by his invention of the binocular microscope, his simplification and improvements of the ob-

ject-glasses, which throughout the world are all now made upon his principle, his parabolic condenser, and other inventions, has acquired a name which will ever be associated with the highest department of optics, both mathematical and applied.

There is a well-appointed glass-room connected with the establishment into which purchasers may step and see any lens practically tested, or may compare the respective merits of any lens of their own, by other makers, against such as they may desire to subject to such a scrutiny.

I had almost omitted to say that there is, too, on the street level, a front store richly fitted up, and replete with the choicest optical productions of the age, including astronomical and every other kind of telescopes, field and opera glasses, microscopes of wonderful elaboration and finish, not to speak of the photographic lenses concerning the production of which I have endeavored to give a faint idea, although to the exclusion of the production of the microscope and other specialties of manufacture, upon which space does not permit me to enter at present.

None but men of the highest experience are employed in this factory; and except in the counting-house, no apprentices are taken. At the time of my visit there were seventy-five men busily engaged at the Ross works. I have failed, my memorandum-book tells me, to describe the milling and turning and planing machines; or how, when the lenses are cemented together, they are laid upon a pan like griddle cakes, and subjected to the influence of a flame and carefully watched.

But I must not fail to tell you what they use to blacken the insides of the lens tubes with, for it may be useful to you. It is a mixture of the proper consistency of vegetable black, alcohol, and shellac. And I must tell you also that I held something in my hand more precious than a diamond. It was a lens of 50th of an inch in diameter! Just think of being able to place fifty such lenses side by side within the limits of an inch, and yet it was a perfectly ground and perfectly corrected lens.

I wish I could tell you all about the magnificent telescopes and microscopes I saw there, and the field and opera glasses. Some

of the latter are made with cases of aluminum—the lightest of all metals. The only trouble about them is, that if your pocket is picked, you won't be able to find it out even when aided by a powerful Ross microscope. Messrs. Wilson, Hood & Co. are the American agents for the Ross lenses.

One of the wonders of London is the establishment of Messrs. W. A Mansell & Co., publishers of photographs saw so much of the world and its beauties, on paper, at once, as I did there. It is perfectly overpowering to look over their variety of pictures and see what photography has done. But as "Our Picture" this month is from them, I make a separate article concerning it and them, robbing this also of some remarks I had reserved on the grand interiors of Europe, how to photograph them, etc. Let me refer you to this article with the hope that it may be useful to you one day or another, and then trip on with our views through the London fog. Ah me! Talking of fog-it is a hazardous thing to go out into the streets of London minus an umbrella. If you do ever do it, run back for your life and get one, else get drenched. There is no occasion ever to lend your umbrella there, for everybody always carries one. And could you but see my Berlin umbrella, with which I swung Galileo's lamp at Pisa, and which saved me from sunstroke in Switzerlandsomething like this! When it doesn't rain



Something like this!

the habit of using the umbrella as a walking stick grows upon one, so that the "woodwork" invariably wears out first. It must be perplexing to be a photographer there, yet there are some good ones. Mr. Valentine Blanchard, 48 Piccadilly, has the best studio I saw, and the gentle-

man himself is a capital photographer as well as a capital good man. The largest studio is probably Messrs. Elliott & Fry's, but none compare with our own American city establishments. Outside of and in places near London, photography seems to flourish more than in the city proper. At Tunbridge Wells, Messrs. Robinson & Cherrill have an ad-

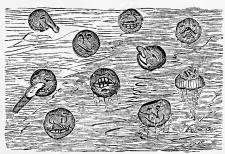
mirably arranged studio. Mr. H. P. Robinson is very well known to many of our readers by his capital work "Pictorial Effect in Photography." I visited his studio, and enjoyed examining his combination pictures, an example of which, with the method of producing such works, was given in our March number. The newest attraction to me there, however, was the working of the burnt-in enamel process, which I was shown from beginning to end, without, however, knowing anything of the mixtures. The details of a crude process were given in our last number, but Messrs. Robinson & Cherrill have made undoubted improvements-their work shows it-which I hope some day will become useful to photographers generally. American photographers hardly seem ready for it yet, but I believe the time is coming when these pictures will be "all the rage."

The best landscape photographer hereabouts is undoubtedly Mr. Frank M. Good, and it was explained when I saw him. He is a thorough artist in feeling, and fully up in all the requirements of his art. His Egyptian and Eastern views are unrivalled. He superintends his own printing, and is most careful and cleanly in every respect. He "doctors" his negatives, and with spots of india-ink, bits of tissue, and patches of transfer paper adhering to them, some of them look very much covered up, but after all it is the results; and his results, without any pun, are good.

The annual exhibition of the Photographic Society opened the day after I left London, but through the courtesy of Mr. Woodbury, one of the members, I was allowed a peep. There were some fine things there. The Crawshay prize pictures were also shown, and some of them were most laughable distortious. I remember one lot on pink paper, much overlighted, which struck me—as a blow in the face. They were perfectly stunning. I do not think large lenses are a success. The solar camera is better—and Moore of it.

And so on I travelled through London, day after day, with that good man, Mr. Theo. N. Gates, the then agent of the Phenix Ferrotype Company, as companion, seeing and hearing and learning much, but compelled to leave before I had half finished what I desired to see. Of course I went to Westminster Abbey, and St. Paul's, and the Crystal Palace, and all over and around, but of these I must not write now, for I have not the space, and besides, in my "Lantern Journeys," they are all described.

The hour came to go home, and the last night was spent in packing up. Then next day to Liverpool, and then the next upon the steady but slow ship Batavia, I started for home. It was a dull voyage. First, four days of fearful gale, then head-winds all the way. During the day a horizontal pose was easiest, because one could scarcely walk the deck. In the evening I looked over at the phosphorescence. Sometimes the display was exceedingly brilliant and beautiful, and then again, as the mind would grow dull over matters and things about generally, or dream about home, recollections of the past would come up, and the masses of phosphorescent matter would seemingly assume all sorts of shapes hideous t o behold, some being in the form of the



Faces of disagreeable people I had seen.

faces of disagreeable people I had seen in Ireland, and France, and Germany, and Rome, and Switzerland, and London, etc. There were but few aboard whose digestive organs were not disarranged. The cause of the whole trouble, the sailors said, resulted from the fact, that Mr. Mark Twain was aboard. I think he suffered with the rest. I found him on deck one day in a most hopeless pose, writhing and sighing for New York.

After twelve days we arrived in New York Bay, and soon afterwards at Jersey City. I was the first to spring ashore. I was glad to see a few of the autumnal tints left, glad to be again upon my native soil.

I ought here to give a general summing up of my journeys, but there is not room. You may get some of that in a less summary manner some time. I have only told you of a little of what I saw. Many things I have told you might have been left untold, but you should be thankful that I have not told many things which I could tell.

With an eye open to the ludicrous, I have found it hard sometimes to remember that I was writing for a highly "scientific" magazine, but if I have, with all the restraint I felt, gone too far, I pray the editor and his readers to forget and forgive.

I do not believe any one ever had so good a time among the "Views Abroad and Across," in the same number of months as I had. A friend or friends in every city, from whom nothing but kindness camegood health, good weather—all but one thing that one could wish.

I wished many times for you all. I do believe you would have enjoyed it just the same and just as much as I did had you been there with me, but since you could not, how selfish it would have been in me to have kept all I saw and learned to myself; this is my only apology for this hastily and feebly written account of a few of my

VIEWS ABROAD AND ACROSS.

THE TRANSIT OF VENUS.

About the time these pages will appear to our readers, the world of science will be all in a flutter to know what success attended the efforts of the different expeditions who have made so much sacrifice to go to observe and to photograph the Transit of Venus. And our American readers will be particularly interested to know what success has crowned those of our own countrymen, whose departure we noticed on page 213 of our July number, for various lands, with the objects named in view.

After the tedious voyages they land upon the shores of the station to which they have been assigned, and after a more or less savage reception by the natives, they at once proceed to make preparations for the coming phenomena. Observatories are erected, and perhaps living quarters; stone foundations are sunk for the accommodations of the telescopes, and a sufficient quantity of the most approved and improved dark-closets are erected. Then follows the usual drill and preliminary practice so far as possible, the daily discussions concerning the weather, and so on until the eventful days appear.

Each expedition before leaving home was supplied with a copy of the printed instructions prepared by the commission authorized by Congress by authority of the Secretary of the Navy, so that none of the blunders which are so often made on such critical occasions could possibly occur.

Let us interest ourselves in our far-distant co-workers for a little while, and imagining that we are in Kerguelen Land or China or New Zealand, mentally "go through some of the motions." One of our party is selected to keep a journal of our proceedings, and each observer is supplied with a memorandum-book for recording the chronometer indications, the readings of the level, and the exact time at which the photographs of the sun are taken, and so on, even to the side of the negative which was towards the north, east, etc. We have our instruments well set upon rock or damp sand foundations, and our photographic telescope set upon a nearly level line, say sixty feet from north to south, care being had always that the sun be visible from the point occupied by our instrument, during the whole time of the transit and a little longer. And now we come to the exact adjustment of our objective and instruments for the work. The requirements are as follows:

- 1. The distance between the photographic sensitive plate and the objective should be equal to the focal distance of the latter within a fraction of an inch.
- 2. The line joining the optical centre of the object-glass and the cross-lines in the middle of the photographic plate-glass should be in the true meridian within a fraction of a minute of arc.
- 3. The same line should be borizontal within the same limits.
- 4. The optical axis of the objective should be directed toward the centre of the photographic plate.

- 5. The plate should be perpendicular to the line joining its centre and the centre of the objective.
- 6. The bubble on the long level of the plate-holder should be at rest nearly in the middle, or, at least, should not touch either end of the tube.

So you see we must be very particular, but our book of instructions gives us all the instructions necessary to determine when we are right, and we go on fearlessly. Day after day we drill, and at night the astronomers are busy observing all the visible occultations of stars by the moon which occur, until the eve of the eventful 8th of December makes its appearance.

We again

- 1. Measure the distance between the plateholder and objective. And repeat this measure on the morning or afternoon of the transit, according as the time at which it occurs gives the better opportunity.
- 2. Determine the error of level of the photographic telescope.
- 3. Take reversed photographs of the lines of the plate-holder.
- 4. See that the adjustments are all correct.
- 5. That the axis and mirror of the heliostat are at the proper angles.

And, in general, that every part of the apparatus for observing and photographing is in perfect working order.

We must also see to it that we have two hundred well-cleaned plates reserved, and enough material to work them all day. During the 8th we photograph the sun at intervals, and so on the 9th, until the first contact of the two great stars occurs. How beautiful they look now—like two great generals gorgeously and strongly equipped, going into battle against each other, and just as surely as they exist, one must be vanquished while the other conquers.

Immediately before the computed time of contact, the slide will be drawn back, and a sensitive plate will be placed, not in the plate-holder, but in some movable support immediately in front of it, and in such a position that, when exposure is made, the uncovered part of the sun's image shall fall near one vertical edge of the plate. An exposure will then be made as nearly as prac-

ticable at the computed moment of first contact; the plate will then be moved one inch, and a second exposure will be made, and so on to as many exposures as the plate will admit of. The chronometer-time of each expo ure must be noted and recorded, and the time must also be marked on the chronograph.

The object of this is to have as many photographs as possible of the indentation made by Venus on the sun's limb during the first five or ten minutes of the transit. Therefore, while one plate is being exposed another must be preparing. The exposures must be made as rapidly as the operations can be conducted and the times recorded with the proper care.

The regular photographs of the transit must then be commenced. In the division of the labor it should be the exclusive business of one person to see that everything is working properly. The remainder of the force must be devoted to the taking of the pictures, and the record of the following particulars in proper ruled forms:

- 1. A number, to be distinctly marked on each negative.
 - 2. The chronometer-time of exposure.
- 3. The reading of the level on the plate-holder.
- 4. The direction (east or west) of the small arm on top of the frame, from the centre of which the plumb-line is passed through the plate-holder.
- 5. The temperature in the room at the time of exposure.
- 6. The direction of motion of the slide (east or west).

In taking the pictures, the slide must be moved alternately east and west, and the direction of the arm carrying the plumbline must also be frequently changed.

In developing the picture, the sharpest and best-defined edge must be sought for, without regard to the details of the solar surface; and the image must be as dark as possible to the very edge. To attain this end, the central portions must be a little over-exposed. If the image is found to shade off toward the edge in any considerable degree, the time of exposure must be increased, first by widening the slit, then, when this is fully open, by lessening the tension of the

spring. If the exposure is still insufficient, the slide must be moved over by hand with as uniform a motion as possible.

All hands are of course anxious for success, but coolness and precision are all-important. Then if the weather be good we shall have within our negative boxes, results which the world but seldom has the opportunity of securing, and which will immensely aid the cause of science. After the transit is ended the plates will be carefully packed, and then a sudden home-sickness will seize us all. But to head that off we will depart from our mental condition, and note a few of the matters pertaining to the formulæ which "the boys" in actual practice were instructed to use.

- 1. Clean and albumenized plates.
- 2. The Collodion—the same formula to be used by all the parties in order to secure uniform results as follows:

Pyroxylin	١, .			80 g	rains.
Iodide of	Cad	mium	٠, ٠	96	
Bromide o	of Ca	dmit	ım,	8	4 6
Alcohol,				8 0	unces.
Ether,				8	6.6

- 3. The Nitrate Bath. Silver forty grains to the ounce of water, acidified in the proportion of one drop of C. P. nitric acid to four ounces of the bath—no iodide.
 - 4. The Developer.

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5. Fix with cyanide, except during actual contact, when the plates may be fixed in a dish of hypo.

The labor is divided as follows: One assistant coats and dips the plates in the order in which they have been numbered; a second develops and fixes, a third takes the plates from the first and makes the exposures, while the chief watches over all.

The great event has transpired, but the parties may not yet return home. They must remain a week longer, and on every sunny day, they must make reversed photographs of lines of plate holder, just as they were required to do for thirty days previous to the transit. Directions are given in full

for this work, but they would be of little interest to our readers.

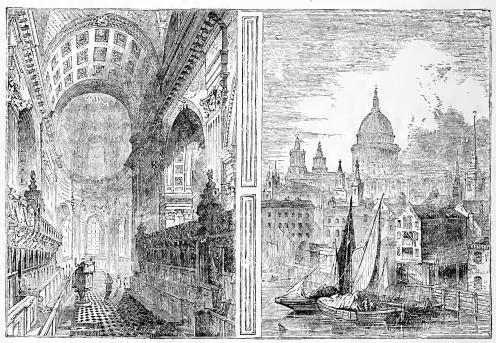
We lay down our pen now, and impatiently await the actual news from our friends, which we trust the telegraph will soon bring us.

OUR PICTURE.

As a sort of terminus to "Views Abroad and Across," we present our readers in the current number with a picture of a little different order from any they have ever had before; namely, a first-class architectural view of some one or another of the beautiful churches or cathedrals of the old country. Among the greatest attractions to the visitor in Europe are such places. They not only represent in themselves the various styles of architecture, embodying some of the most exquisite works of art, but their interiors are

our privilege to visit, until we were feasted to the utmost limit of our capacity to enjoy and understand, for one may have too much of even such glorious things, if they be taken in too rapidly.

About eight hundred years ago a revival in church architecture took place, and structures were erected grander and more magnificent than all those of preceding centuries. Associations of builders were formed, whereof the prelates and abbots themselves formed a portion, and which were essentially composed of men who were bound by a religious vow; the arts were cultivated in the convents, the churches were built under the direction of bishops, the monks co-operated in works of all kinds; and for all this photography at least should be thankful, for it has supplied some of the grandest, loveliest subjects for the camera that one could wish for -exteriors, with their columns, and col-



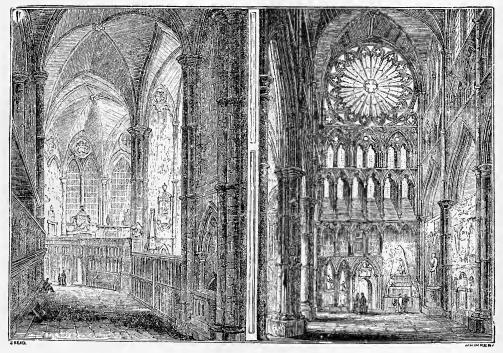
St. Paul's, London.

very often museums of art, with their masses of sculpture and acres of paintings by the old masters, and interior chapels, to say nothing of the display of art in the construction of their interiors. Many of such places it was

onnades, and porticos, and stairways, and domes, and turrets, and pinnacles, and pediments, etc.—interiors, with their massive aisles, and arches, and naves, and pillars, and niches, and chapels, and pulpits, and

choirs, and triforiums, and confessionals, and vaulted ceilings, and domes, and altars, with masses of statuary which seem almost to possess breath and life! Look for a quiet example upon the engravings of St. Paul's at London, exterior and interior. grandly the old dome stands out above all its neighbors, over and above the great sea of life at its feet, like a lighthouse in midocean; and its interior, with its choir, and arches, and glorious dome, and pulpit, and ceiling, and pavement, and windows-all so impressive and beautiful—the work of one architect and one master builder for thirtyfive years-a Latin cross in form, and five hundred and fourteen feet long, by two hundred and eighty-seven feet wide, costing four million dollars. The tombs of the dead here are elaborated with exquisite sculpture; yet with all its massive grandeur, St. Paul's is not to be compared with its neighbor, Westminster Abbey. We will

four hundred feet long and two hundred feet wide, and is of Gothic design. There are many chapels in this exquisite interior, some of which are made fairly gaudy by the elaborate display of works of art, reminding one more of the churches of Italy than any other church in England. You will observe the arches, and pillars, and niches, and choir stalls, and tombs, and works of sculpture in all directions, with the superb ceiling, every foot of which is a study. These are comparatively feeble examples of what may be seen by the lover of art in Europe, and we only mention them in order to bring your attention more directly upon a subject which we could not help but confess, while in Europe, that American photographers are deficient in. We allude to the photographing of churches, exteriors and interiors. We have many beautiful ones in our country, though not nearly so beautiful as those abroad, yet



Westminster Abbey.

give you a chance of comparing interiors by examining the drawings which follow.

such as are well worthy the attention of the camera. And the first step towards prog-It is likewise built in the form of a cross, | ress in that direction is the study of proper examples. We place such before you now, and propose in some way or another in the future to give you further instruction on this score.

The pictures which embellish our present number were made by Messrs. W. A. Mansell & Co. London. We have digressed from our usual plan of using one pieture all through our edition, and instead have used quite a number of subjects. We append a list of them, and the number of your print you will find on the back of it. In this way we present a greater variety, and are enabled to do it more quickly than we otherwise could. Again it gives those subscribers who are in the same towns and cities an opportunity of comparing pictures with each other. Still we do not intend that such shall be their only way of studying a variety of Messrs. Mansell & Co 's splendid architectural photographs. We have arranged with those gentlemen for a large lot of their pictures at a very low price. These we have selected from their long list, and so arranged them in sets as to enable the purchaser to have a splendid variety to study of the various orders of architecture, exteriors, interiors, parts of interiors, and sculpture.

The price is so ridiculously low that every photographer can afford to avail himself of this grand opportunity. For the lists and terms we must refer to the advertisement. We do not enter this field as a speculation. We do want our readers to become well cultivated in all branches of their work; such study and drill will do them good, if we may be permitted to make such a suggestion. Following this, please read the article on Photographing Interiors. We trust that all these things may be of profit to you, and help you. We leave the matter with you to consider.

When in London we visited the huge photographic manufactory of Messrs. Mansell & Co., and we see no reason why sooner or later we should not have just such grand places here. A little push is all that is needed.

In order that each subscriber may know the subject of the picture in his number we have caused our mounter to place the number of the view on the back of the mount, and here append a list of the subjects for reference.

The copies we offer for sale are the best of these, carefully and studiously selected with the object named in view. The list of subjects is as follows:

LIST OF SUBJECTS.

Norwich Cathedral, Nos. 2011, 2011a. Hereford Cathedral, 565, 571, 572, 573, 578, 584, 590, 591.

590, 591.

Peterborough Cathedral, 543, 546.

Gloucester Cathedral, 593a, 594, 596, 615.

Ely Cathedral, 83, 85, 89, 174, 226, 242, 2002.

Fountain's Abbey, 514, 516, 517, 524, 531, 532.

Oxford Cathedral, 15, 40, 44, 50, 223, 240.

Lichfield Cathedral, 75, 175, 356.

Windsor Castle, 211, 342 and 354.

Durham Cathedral, 493, 495, 496, 497, 499, 501, 505, 506, 509, 513.

Peterborough Cathedral, 548, 553, 556, 557.

Lincoln Cathedral, 214, 217, 220, 243, 344, 365.

Ripon Cathedral, 535, 536, 542.

Winchester Cathedral, 225, 229, 230, 232.

PHOTOGRAPHING INTERIORS.

In this department photographers find many difficulties to contend with, and often entire failure is the result of patient and industrious effort. We have, therefore, devoted somewhat of our present number to instruction in this direction. The greatest difficulty is usually the want of light, and the consequent prolonged exposure, during which the plate, by the ordinary wet process, becomes dried and stained beyond remedy.

To overcome these difficulties, the requisites are: A quick-working instrument, and a sensitive process that will admit of a long exposure.

In regard to the first of these no particular instrument can be recommended, but the photographer must use his discretion. If there be sufficient light so that a good view lens can be used, it will doubtless give a more perfect picture, both in the architectural correctness of the drawing, and in the depth of focus, where there is an extent of perspective. But in many cases the light is such that only a quick-working portrait ens can be used. Many of the best por-

ORDER SHEET.

PLEASE FILL YOUR ORDERS IN THE BLANK BELOW.

Premium on all New Subscribers, not your own, at the rate of \$1 per annum, payable in any of our Publications, offered to everybody. Please see Red Letter advertisements in the November and December Numbers.

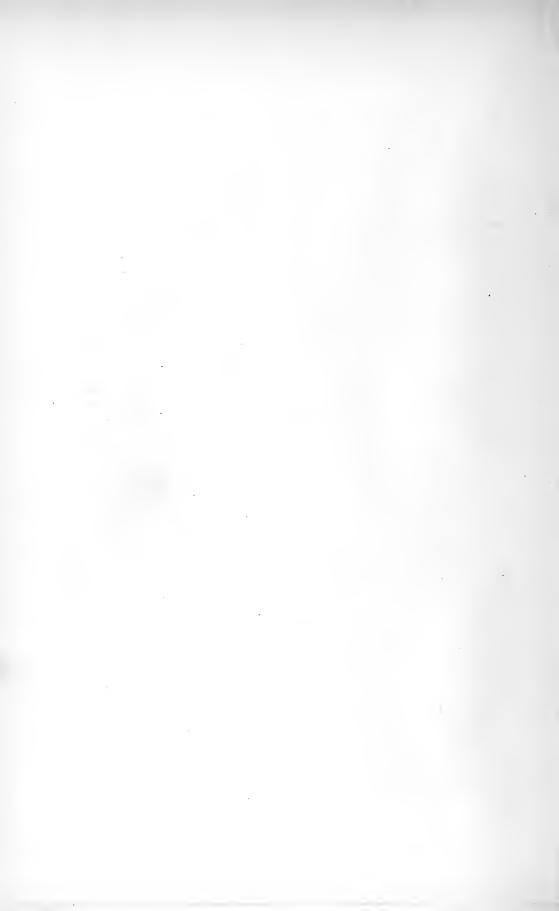
Please read our Advertisements of Photographic Publications.

Messrs. BENERMAN & WILSON, Photo. Publishers,

Seventh and Cherry Streets, Philadelphia, Pa.

public at			DING.	
Philadelphia	Photo	ographer, \$5.00 a year,		\$
-		Photographic Mosaic, 18 cloth, \$1.00; paper, 50 cents		
	"	Hearn's Practical Printer, \$2.50,		
		Bigelow's Album of Lighting and Posing, \$6.00,		
		How to Paint Photographs (3d edition), \$2.00,		
	. 4	Dr. Vogel's Handbook of Photography (new edition), \$3		
	14	Dr. Vogel's Photographer's Pocket Reference Book, \$1.5		
		Anderson's Photo-Comic Allmynack, 75 cents,	•	
		The Ferrotyper's Guide, 75 cents,		
		How to Sit for your Photograph; cloth, 60 cents; paper,		
	4.6	Linn's Landscape Photography, 75 cents,		
	- 6 6	Glimpses at Photography, \$1.25,		
	4.6	Lea's Manual of Photography, \$3.75,		
	4.4	Wilson's Lantern Journeys, \$2.00,		
		TOTAL AMOUNT,		
3.0				
Name,				
P. O				
County,				
State.				

[On the other side please put additional orders to your own in the same form as the above, and your order for premiums. Do not send greenbacks if you can get P. O. Order or draft. For premium list see third page of cover of the *Philadelphia Photographer*.] Sample Copies free.



trait combinations, however, give very perfect lines, being almost entirely free from distortion, and give good depth with a medium-sized stop. The second requisite has presented the greatest difficulties, however, and has commanded the attention and skill of the best workers, both in Europe and this country, who have endeavored to overcome the evils attendant upon long exposures, and devise processes that may be sufficient for nearly all cases.

Mr. Ernest Lacan, our valued Paris correspondent, referred some time ago to a letter he had received from a correspondent, giving the process used by MM. Hanfstængl Brothers, of Munich, for the reproductions of paintings and photographing interiors.

"The collodion which they use is very full of alcohol, being composed of

Alcohol, . . . 60 cub. cents. Ether, . . . 40 " " Pyroxylin, . . . 1 gramme.

"To this is added ten cubic centimetres of a sensitizing solution thus made up:

Alcohol, . . . 100 cub. cents.
Iodide of Cadmium, . 5 grammes.
Iodide of Ammonium, 5 "
Bromide of Ammonium, 2.50 "

"This collodion is easily spread, and allows of a very long exposure. It has been extended to three-quarters of an hour, without there being the slightest desiccation of the film apparent, nor the slightest abnormal reduction. When the exposure is to be very much prolonged, the reverse of the plate is coated with a film of glycerin"

For long exposures it will be found that plates prepared in a bath free from ether and alcohol, will keep much better than when the bath is charged with these volatile liquids. But we give below another process which we extract from the News, which works in a different direction altogether, and which we commend to the practice of those making long exposures, as coming from the best of authority, and based on sound principles of chemical science: "The plan we are about to describe is due to Mr. Valentine Blanchard, who during the hot autumnal months of last year, found it invaluable during the long exposures neces-

sary in some dark interiors, and on various occasions during landscape work, in which the plate had to be carried a long distance. He has already further put it to the test this season, having a few weeks ago exposed a 12×10 plate in one of the dark interiors of Westminster Abbey for three hours, and then developed it without a stain, and without trace of fog or any other defect.

"The plan is simple, and consists in the use of a collodion prepared for the purpose by the addition of a much larger proportion of bromide than is usually employed. The value of bromide in securing immunity from stains, comets, and other markings, has long been known, but its mode of operation in doing this has not been well understood. Its action in permitting long keeping, however, is easily explained. The process of double decomposition, in which the bromide salts employed in the collodion are changed into bromide of silver, is much slower, as is well known, than is the conversion of iodides, and when a simply bromized collodion is employed, the immersion in the nitrate bath needs to be very much prolonged, in order to convert the whole of the bromide in the collodion into bromide of silver. In effecting his purpose, Mr. Blanchard just pursues the opposite course. ploying a very highly bromized collodion, he gives the plate the shortest possible immersion in the nitrate bath, keeping it in motion from the first, to get rid rapidly of the greasy, streaky appearance of the plate. The solution running evenly over the film, without streaks or oily-looking lines, which is generally regarded as the indication of sufficient immersion, is, in reality, no test of the conversion of the salts in the collodion film into salts of silver; it merely indicates that the alcohol and ether in the film have become thoroughly mixed with the aqueous solution, and the mutual repulsion has ceased. Under ordinary circumstances, however, by the time this is thoroughly effected, the mutual decomposition of the iodides originally in the collodion and the nitrate of silver, and the formation of iodide of silver and a nitrate of potash, or other base, is also complete. With bromides, as we have said, this operation is not so rapidly completed; if therefore a

collodion film containing a large proportion of bromide be immersed and kept in motion, so as rapidly to get rid of greasiness, and then removed after a very brief immersion, the film will contain a large portion of the bromide, say of cadmium or ammonium, which remains undecomposed, and is not converted into bromide of silver. In this fact lies the safety of the plate for long exposures. The free nitrate of silver, which would otherwise be crystallizing on the surface of the film, or by the concentration of the solution caused by evaporation, acquiring a readier tendency to abnormal reduction, now performs a different office; being in contact with the unconverted bromide of cadmium or ammonium, it is decomposed by it, and aids in the formation of bromide of silver in the film.

"Instead of being made stronger by evaporation of water, the free nitrate is made weaker by the loss of the silver which combines with the bromine, whilst the nitric acid, combining with the base which leaves the bromine, produces an innocuous, or possibly, in some cases, a hygroscopic, and therefore beneficial, salt. It will thus be readily seen how the use of a large portion of bromide and a very short immersion of the plate in the nitrate bath tend to prevent the stains of crystallization, or of reduction consequent on long exposure in warm weather. The mode in which the effect in question is secured in the case described may possibly suggest an explanation of the general action of bromides as aids to clean negatives. It is probable, in most cases, where a freely bromized collodion is employed, and the plate kept in the bath the usual two or three minutes, that some portion of the unconverted bromide remains in the film, and that the formation of bromide of silver goes on after the plate leaves the bath, the bromide of silver being formed at the expense of the free nitrate on the film, which is thus much weakened. As the use of a weak solution of nitrate of silver, at times secured by redipping the plate in a weak bath, is known also to be conducive to cleanliness, the weakening of the free nitrate by the formation of bromide of silver may also be a source of cleanliness wellk nown as an accompaniment of the use of bromides.

"The amount of bromide in collodion for very long exposures may vary from two grains to two grains and a half. Any soluble bromide may, we presume, be used without impropriety."

A Word or two about Books.

SINCE we include an order sheet in our present number, we desire to call attention to some of our books, which we believe photographers will find particularly desirable and instructive during the coming dark days and long evenings.

Dr. Vogel's Handbook of Photography, Second Edition (\$3.50), has been increased to 384 pages, and is without doubt the most complete work of its class. Many new things are added to it, with fine new illustrations, and four new photographs illustrating the illumination of the face, and the old portions have been completely revised, so that it is really in the main a new book. You cannot afford to lose the benefit of reading it

Photographic Mosaics for 1875, is no worse than usual. It will also be ready about December 5th, and contains a list of articles that cannot be excelled. To know what they are and the names of the authors, we must ask you to read the advertisement. You get 144 pages of good reading for 50 cents.

The Ferrotyper's Guide, Second Edition, will also be ready by about the time you see this. The demand for this little work compels us to reprint it. It is in matter much the same as former editions, which are exhausted. 75 cents.

The Practical Printer has proven a most acceptable book both at home and abroad, and the copies left are just as good as those already sold, so do not be afraid to order them. In England a great part of it has been reprinted in the photographic journals, doubtless for want of other matter as good, and to operators there it has also proven a most acceptable helper. Our correspondent, Mr. William Heighway, of London, says of it: "I think it is the best photographic book of a practical character that I Its simple, readable, earnest have read. style pleases me wonderfully, and it is evidently the work of a man who knows what

he is talking about, and one who is happy in being able to teach what he knows—a rare combination, as we know. Your contributions to photographic literature are most valuable, and of them all this last is most valuable." The price of The Practical Printer is \$2 50.

Wilson's Lantern Journeys is a readable book to any one interested in foreign countries and places, and especially valuable to any one who has a series of stereoscopic views or lantern slides—six hundred places described—three for a cent—\$2.

We now leave the subject to you with the order sheets.

MATTERS OF THE



Membership costs \$2; annual dues, \$4, in advance. Employés half rates. Life membership, \$25, and no dues. It is proposed presently to double the fees for life membership.

Members are hereby notified that their annual dues were payable June 1st, 1874. Employers \$4, and employés \$2. The Treasurer urges that prompt remittances be made. Please remit now.

All remittances of back dues should be sent to the Treasurer, Albert Moore, 828 Wood Street, Philadelphia, and fees and dues for new members to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

What does it mean? The Executive Committee were much surprised at their last meeting, to hear the Secretary report twenty-four new life members! This surely shows greater prosperity than was ever known before, and it means that the N. P. A. is not going down. That it is in a more prosperous condition now than ever before. Its debt is less, and its roll for life is larger than ever before also. Only a small debt remains, and if those whose dues are not paid will make one more effort to pay up,

they will never see their Association in debt again. Do it now, and let the new year find it free from any debt whatever. It can be done.

The Report of the Chicago Convention is now ready, and will be sent to any one who sends the Secretary \$1 for it It has been carefully revised, all superfluous matter, tedious discussion, etc., clipped from it, so that it is really a good practical work on photography of nearly one hundred pages. We should prefer having seen it given to all the members of the Association whose dues are paid, or to have had the privilege of giving it to our readers as heretofore, but since we are restricted, we have to say that only five hundred copies are issued, the bulk of which have been ordered. When the rest are gone, there will be no more obtainable at any price; all the practical, useful matter is included.

Where shall we go? Boston has been given up by the Executive Committee, and there is a hankering after San Francisco. Why not go there? It would satisfy in an equivalent those who prefer to have no convention in 1875; and also those who reasonably argue, that a suspension of the annual conventions would be fatal to the life of the Association. We do not think a better compromise could be effected, especially as our California friends offer such inducements.

Good. A city photographer was overheard the other day to deliver himself thus: "Join the N. P. A.? Not I! Its conventions and exhibitions have learned country photographers to make just as good work as we do. There was a time when country people came to us for their good pictures, now they can get them at home. No, sir! No N. P. A. for me."

Well, why don't more of our city photographers attend upon the N. P. A. conventions? Perhaps they might learn something too. There is room for it in some instances.

The National Photographic Association will Live.—It seems as though the Association is thought more of by those who are at a distance, and who cannot attend the annual meetings, than those who are nea

and can. Here is another example. Mr. H. B. Hillyer, of San Antonio, Texas, says:

"I should much regret to see it go down, and as it is the property, or as it were, a stock company, in which every photographer is or should be interested, it is for the interest of each and every individual photographer to assist it on its legs, and keep it there; and I assure you there will be many regrets by those who let it die by their neglect, after it is too late to render any assistance. We often fail to appreciate a thing when in possession, but once lose it irrecoverably, and then we know and feel what we have lost; and, I am sure, there is not a live photographer in the country but will be sorry, should the National Photographic Association cease, from want of their aid. I have felt much in this matter, but have from circumstances been prevented from being as liberal as I wished to be, but with recovering health and ambition, I hope in future to do more toward making it a permanent success, and much regret not being able to attend the meeting in Chicago, in July, but you can be assured I was with you in soul, and shall expect to see its report soon."

PROCEEDINGS

OF THE

Executive Committee of the National Photographic Association.

A MEETING of the Executive Committee was held on Thursday, November 12th, 1874, at 8 P.M., at the office of the *Philadelphia Photographer*. Present, Messrs. W. Irving Adams, chairman, A. Bogardus, V. M. Wilcox, J. W. Black, W. H. Rhoads, and Edward L. Wilson. The minutes of the last meeting were read and approved.

The report of the Treasurer was read, showing the treasury \$17.69 overdrawn, and a debt of \$346.65 still upon the Association.

Considerable pleasure was expressed that the debt had been reduced to "so fine a point." The Secretary announced that if all those who had agreed at Chicago to become life-members, and to contribute to the debt fund would now keep their promises, the debt would be entirely removed and a balance of about \$100 in the treasury. He

read a list of these promises, which amounted to \$435, and he was directed to remind the parties of the agreements and to solicit a settlement as soon as convenient. All the members seemed to feel cheerful over so pleasant a prospect for the Association, and were made to feel still more confident of the ultimate strength and growth of it, by the still further report by the Secretary of twenty-three life members, viz.: J. A. W. Pittman, John Cadwallader, Rudolph Goebel, E. Y. Bell, A. S. Southworth, D. H. Cross, F. A. Simonds, George S. Cook, S. P. Wells, W. H. Rulofson, J. R. Clemons, Jr., Mrs. G. N. Barrett, C. H. Danforth, G. H. Loomis, I. B. Webster, G. M. Carlisle, F. B. Clench, Mrs. E. N. Lockwood, G. Cramer, A. C. Partridge, H. R. Marks, A. N. Hardy, C. D. Mosher.

These parties were all approved by the committee, and they are life-members.

Mr. William H. Rhoads, who was appointed to audit the report and accounts of Local Secretary Hesler, reported that he found from Mr. Hesler's account that the expenses of the Convention and Exhibition were \$1618 67 The collections from dealers, pho-

tographers, hotels, admissions,

Leaving a deficiency of . . \$455 97

Which deficiency has been paid by the Treasurer of the Association.

Mr. Rhoads also suggested in his report "that a special vote of thanks be tendered to Local Secretary Hesler, and through him to the numerous subscribers at Chicago, who so kindly gave money and their services for the benefit of the Association."

Mr. Rhoads's report was accepted and adopted.

The Secretary read correspondence directed by this committee between himself and Messrs. J. W. Black, Local Secretary elect, of Boston, and President Rulofson, with reference to the time and place of holding the 1875 Convention. Also from other parties on the same score, the gist of which was that no proper place could be had in Boston for the Exhibition, without great expense, and that a hall was offered in San Francisco free of expense, and all

sorts of welcome tendered by the new President to "come to San Francisco." Likewise that the President of the Central Pacific Railroad had agreed to make any reduction in fare from Omaha west that could be secured to that point.

Mr. Black was present, and stated that if it was concluded to have the Convention in Boston they would do the best they could, and also expect to raise some money, say \$500 from the dealers, and more from others. The only objection was the costs of a proper hall, and they would be great.

After the matter was discussed at length, and conference held with Mr. Black, Mr. Rhoads offered the following:

WHEREAS, A decided opposition appears against the National Photographic Association holding the next annual Convention at Boston;

And whereas, A strong pressure is brought to bear upon the Executive Committee to hold the next Convention at San Francisco;

And whereas, The National Photographic Association empowered the Executive Committee to name the time and place for the next Convention, if a change is desirable; therefore,

Resolved, That after correspondence and interviews with the Local Secretary, Mr. Black, and prominent members of the Association in Boston, and ascertaining that no suitable place can be had, without great expense, we deem it inexpedient to meet at that place next year.

Resolved, That inasmuch as the Association has been repeatedly urged by the President, William H. Rulofson, to hold the 1875 Convention in San Francisco, he guaranteeing a hall free of charge, that the Executive Committee address a communication to the prominent members and exhibitors, asking their views on the subject, with a request to answer by return mail.*

The resolutions were adopted unanimously, and the Secretary instructed to see what railway terms could be secured in case the Convention be held in San Francisco.

Letters were read from subscribers for copies of the Proceedings of the Chicago

Convention, complaining of having to wait so long for it after they had promptly paid their money. The Secretary reported that about two hundred and fifty copies had been subscribed and paid for; not enough by fifty dollars to cover the cost of the lowest estimate bid for printing the Report. Several offers were made to print it by contract, and the offer of Mr. Edward L. Wilson was finally accepted as being the most favorable, as follows: "To print the Report as soon as practicable and possible, and to make good the obligations of the Association to the subscribers for copies, for the sum already paid in for the copies to the treasury, and for the exclusive sale of copies in the future; subject, of course, to the vote of the Association at Chicago that it be published without advertisements, under cover alone, and likewise not to be published in any other way; and subject, too, to the vote of the Executive Committee, that the price charged shall be one dollar per copy, and no less." Thus that grievous matter was disposed of, and the Report is obtainable now as above.

After further desultory conversations and congratulations on the flattering prospects of the Association, on motion, adjourned.

EDWARD L. WILSON, Secretary.

SOCIETY GOSSIP.

PHOTOGRAPHIC SOCIETY OF PHILADEL-PHIA, November 4th, 1874, the President, J. C. Browne, Esq, in the chair.

The minutes of the last meeting and the report of the Treasurer for the past year were read and accepted.

The resignation of Mr. Joshua Lippin-cott was read and accepted.

The following gentlemen were elected to serve as officers for the ensuing year:

President, Mr. John C. Browne.

Vice-Presidents, Mr. George W. Hewitt, Mr. John Carbutt.

Recording Secretary, Mr. Ellerslie Wallace.

Corresponding Secretary, Dr. Charles Seiler.

Treasurer, Mr. S. Fisher Corlies.

The following committees were appointed by the chair: Messrs. Tilghman, Fassitt,

^{*} At this writing over two-thirds of the answers received to the postal card are in favor of San Francisco.

and Dixon, Room Committee; Messrs. Hewitt and Dixon, Revising Committee.

Mr. Theophilus P. Chandler was elected to membership.

A motion was made to change the evening for the stated meetings to the second Wednesday in the month. Laid over until the next meeting.

Dr. Seiler gave an account of a microscopic examination which he had made of some decomposed albumen exhibited by the President at the last meeting. He had found numbers of animalcules known as algæ in the solution, and offered as an explanation of their presence, the passage of air carrying germs of the same into the bottle through the cork or otherwise.

Mr. Carbutt spoke in favor of Ackland's formula for preparing albumen, and said that he had kept such solutions for six months without change.

Mr. Bates exhibited a No. 5 Ross symmetrical lens.

On behalf of the Room Committee, Mr. Tilghman reported that the balance of the Sciopticon Fund had been expended in slides.

PENNSYLVANIA, PHILADELPHIA, November 16th.—The Committee on Protective Association, appointed at the May meeting, reported that not having heard of any further action being taken in New York or Brooklyn, where the movement originated, there had seemed to be no call for further action, in connection with them. It was agreed, however, that the committee be continued with instructions to look after the interests of the members of our own Association here, and protect them as far as possible from fraud or imposition.

Mr. Rhoads exhibited some fine specimens of the Glacé pictures. The members were much interested in these, and also some of the same class of work by Mr. Phillips.

The thanks of the Association was voted to the publisher of the Western Photographic News for a copy of that journal.

BOSTON PHOTOGRAPHIC ASSOCIATION, November 6th, 1874, the President in the chair.

The Executive Committee were called to report the arrangements made with the Boston Athenæum. Mr. Black said he was not aware that such a motion was made, and therefore he had no arrangements made. Thought he must have been out of the room when the vote was taken. He thought a visit to the Athenæum might do some good, but for the mass of photographers a lecture commencing at the beginning of art would be of more benefit. He was sorry he was obliged to leave the meeting; he had received a telegram from New York, and was obliged to retire in order to reach the train.

Mr. Southworth spoke some moments, and was listened to with marked attention. He said he had not heard a photographer that had spoken on art that his ideas harmonized with so closely as did Mr. Black's.

The President, in his remarks, thought some photographers were as good artists as oil painters, for the photographer does in twenty-five or thirty seconds what it takes the artist in oil a day or, perhaps, two or three days. He thought some artist photographers better capable to instruct than one not acquainted with the chemical action.

Remarks were made by Messrs. Rowell, Bowers, and others.

Benjamin French & Co. exhibited one of Moulton's rapid washers. Messrs. Rowell, Hentz, and others, who have used them, testified to their usefulness, and considered the prints washed this way a great deal better than by the old mode of washing.

At nine o'clock the meeting adjourned to see the exhibition of the stereopticon.

Transparencies by Messrs. Hallinan, Wires, Bowers, Black, and others, were shown, and much admired by those present. About an hour was occupied by the exhibition.

Indianapolis Association.—In the Philadelphia Photographer for the current month I notice that you request the secretaries of all the photographic societies to report to you. I hardly know whether I am one of those to whom the request comes or not, for I am sorry—and humiliated too—to have to inform you that there has not been a quorum of the Indianapolis Photographic Association present at any meeting for the last three months, and con-

sequently no business has been transacted by the Association.

I was about to write the "obituary" of the "concern," for practically it is dead; but, upon reflection, I concluded not to do so, as there is still manifestations of life in the head, the right arm, and, perhaps, some other parts of the body, though it must be confessed that many of the members are paralyzed badly, and it seems doubtful if the body shall ever be restored to former health and usefulness; and if it cannot, we shall, in the course of time, lapse into our former secretiveness and selfishness to a great extent, no doubt. I regret exceedingly the apathy that prevails among our members with reference to the interests of the society, and have done about all I could to prevent it, as have a few others, Mr. Judkins in particular.

J. PERRY ELLIOTT.

THE GLACÉ PICTURE.

At the present time there appears to be a furor among many photographers, each striving to excel his neighbor in the production of this style of picture.

Several questions arise in considering the subject. Is it an advance in the art of photography? And is the Glacé picture worth to the photographer the time that is spent in its preparation?

In answer to the first proposition, we say decidedly, No! To the second, Doubtful! At best we can recognize it only in the light of a change that may prove attractive for a short time, but soon to be laid aside and forgotten. It has generally been conceded, that the aim of the photographer was to render his pictures more permanent. The Glacé picture we claim is far from permanent. The contraction of the collodion and gelatin must tend to make the brilliant surface crack and peel, even with all the protection that can be thrown around the finished picture to preserve it. The excessive gloss is an objection, which rather than acting as a preservative will have a tendency to yellow the picture. It cannot be a popular style, for the cost of production is too great, and it must not be handled, or the collodion surface will soon show scratches and become dull in appearance.

In conclusion, we ask the gentlemen of the photographic profession to give the subject a thought, and consider if the Glacé picture is of advantage, either to themselves or the public.

CRITIC.

BELGIAN CORRESPONDENCE.

GHENT, November 2d, 1874.

EDITOR PHILADELPHIA PHOTOGRAPHER.

ACCORDING to promise, I will endeavor to give you occasionally a brief account of whatever observations I may make here, which can be profitable or of interest to your readers. The first question that a photographer coming back from Europe would be likely to be asked by one of his brethren would certainly be: What do you think of our art in Europe? This question I will also try to answer briefly. In regard to portraiture we (I always consider myself as one of you) certainly hold our own. In landscapes, a very few artists in Europe, at the head of which I put Mr. R. M. Gordon, are, in my opinion, certainly ahead. The carbon printing process has been adopted by a large number of first-rate establishments. I am not aware that more than one or two in America make use of it commercially. In regard to the processes in fatty inks, Europe is decidedly ahead. The number of establishments making use of the different processes of Lightdruck, heliotype, autotype printing, etc., is already very large, and the results obtained are certainly very fine. It is hardly necessary to say that these processes are only practicable and profitable where a large number of prints are required.

It is amusing sometimes to find in the local or in the advertising column of some paper, that one of our brethren, Mr. So-and-so, has just returned from Europe with all the latest improvements in the art. If a photographer in Europe advertised in the same sense, he would have just as great a success as our American friend, for America stands high, in photography, in the estimation of the general public, and her reputa-

tion dates from the time when the daguerreotype was in use, and as far as the daguerreotype is concerned her reputation was certainly deserved. The truth of the matter is, that with the many publications in photography, periodical and others, one need not cross the ocean to know what is going on on the other side. The great benefit derived by photographers through intercourse with their brethren of their own or other countries, does not consist in new processes, wrinkles, and dodges, so much as in the comparison of each other's work.

It has been my good fortune to come in contact here with an old and valued friend, whose publications on photography are well known wherever our art science is practiced. I refer to Dr. Von Monckhoven. The Doctor is engaged here in the manufacture of enlarging apparatus, collodion, etc. dialytic solar camera of his production is certainly the finest and best constructed instrument of the kind I have ever seen. Several, I understand, are used in the United States and in Canada, and if it was not for its high price, many more would be in use. I do not know what is the policy of the editor of the Photographer in reference to secret processes. As my object, however, is to keep your readers posted on what comes under my observation, I will venture to make mention of a new iron developing solution, which is manufactured by Dr. Von Monckhoven, by the use of which the exposure is reduced to one-half, and which is sold at a price low enough to insure its adoption by every photographer who tries it. Dr. William Stanley, of Blackpool, England, is in possession of another secret process, by which the same result is produced. It consists in flowing a certain solution over the plate after silvering and before exposing. No doubt many minds will be set to work to discover what both these processes really are, and I should not be surprised if before very long everything about them will be known. Every fair-minded person will, however, not begrudge Dr. Von Monckhoven and Dr. William Stanley, whatever pecuniary benefit they may derive from their discoveries. Certain persons make complaint that inventors or improvers of photographic processes should expect their labors to be rewarded. Let these persons make the experiment of working for nothing, and they will speedily perceive their error.

I suppose you have been informed of the establishment of the Association Belge de Photography. This Society, although only three months old, counts already over two hundred members. A monthly bulletin is published by it, of which two numbers have so far appeared. Each contains a creditable print in fatty ink. A peculiarity of this Society, worthy to be imitated, is the establishment of a section in each large city. The members of each section meet at least once a month, and communicate their labors to the central committee. In the Ghent section, the following question was submitted by the writer of this: What is the influence of the quantity of sulphate of iron in the developer on the length of exposure? One photographer thought the quantity of iron had an influence on the rapidity of the development, but not on the length of the exposure; another said that in making pictures of children, when short exposures only can be given, he used with advantage a strong developer. No opinion was given which was backed with facts sufficient to give it value. Is it not strange that no writer on photography mentions anything about this question? The secretary of the Ghent section, Monneir Rother, who is a professor of chemistry in the school of civil engineering and your correspondent, were made a committee to make experiments. Solutions of sulphate of iron, without acetic acid or alcohol, were made in the following proportions: $\frac{1}{2}$, 1, 2, 4, and 8 per cent., equivalent to $2\frac{1}{2}$, 5, 10, 20, and 40 grains to the ounce. The experiments were made on stereoscopic plates. The solutions compared were used, the one on one-half, and the other on the other half of the plate. The 8 per cent. developer produced, in ten seconds, a picture which was found well developed; whereas the 1/2 per cent. produced a very dim and under-exposed image, although the development was pushed to its extreme Another experiment was tried. limits. One-half the plate was exposed 160 seconds, and developed with the 1 per cent. solution. The other half received 10 seconds' ex-

posure, and was developed with the 8 per cent. solution. The two pictures compared were found to have the appearance of having had the same exposure; but in the one developed with the 8 per cent. the deposit of silver was thicker. I dare say that by redeveloping with iron and silver, the 1 per cent. picture could have been brought up to the density of the other. The thought of this came too late, otherwise the experiment would have been tried. Experiments were made with the other developers, which it would be too long to describe. The conclusions come to were: 1. That the length of exposure is in inverse ratio to the strength of the developer; that is, that a 4 per cent. solution will require only an exposure half as long as a 2 per cent, etc. 2. That the rapidity of the development seems to be in proportion to the strength of the iron, so that a 4 per cent. solution will take twice as long to develop the picture as a 2 per cent. 3. That the more rapid the development, the more the image will be near the surface; the slower the development, the deeper it will be in the film. For instance, an image developed with a 1 per cent. solution will strike through, and be as visible on the glass as on the collodion side; whereas an image developed with the 8 per cent. will not be visible by reflection on the glass side. 4. That the particles of silver deposited, examined under a powerful microscope, are of a size which seems to correspond to the strength of the solution which has been used. The effects described in the third and fourth conclusions, are probably the consequence of rapid development, and it is probable, that if a restraining agent, such as acetic acid, sulphuric acid, etc., was used in the strong developer, the image would be less on the surface, and the particles of silver deposited would be smaller than if no restraining agent was used. 5. That the intensity, that is, the difference in thickness of deposit between high-lights and deep shadows, is greater with the strong than with a weak solution.

The reader should remember that all these experiments were made with solutions of sulphate of iron without the addition of anything else. It has been known for some time that such solutions with good collodion

and bath will develop images without fog. The same results will probably be obtained if a minimum of acetic acid, say 1 per cent., is added. This, however, belongs to another series of experiments. How strange it is that these few simple experiments, so full of practical results, have not been made before. It is proposed by the same committee to ascertain the influence of different proportions of the different acids used as restrainers, on the length of exposure and development, the condition of the deposit, etc. It is also proposed to ascertain the effect of alcohol in the development; and, finally, experiments will be undertaken to test the value of the different developers used, such as the sulphate of iron and ammonia, the addition of sulphate of copper, the nitrate of iron, the acetate of iron, the addition of gelatin, albumen, etc. All of these I will, with the permission of the editor, describe in my following letters.

I must not conclude without giving a few lines to a subject which is of great importance to photographers. I refer to the reduction of exposure obtained by the use of colored glasses to admit light in the camera or by other similar means. The colored light is supposed to continue the action of the white light. It is contended, however, and with very good reason, that this action is due to the imperfect opacity to the actinic rays possessed by the glass which is used. In daguerreotype times, Blanquart Evrard proposed to paste white paper inside the camera, seven or eight years ago. Mr. Gage proposed to reflect the light from his focussing cloth in the camera, by keeping it for some seconds in front of the object-glass. It has been contended that the only effect of all such means was to fog the plate slightly, thus giving a picture which was less hard than one which was under-exposed, but still devoid of details in the shadows.

Mr. Foxlee gives, in the British Journal, an account of some experiments which seem to set this matter at rest, and prove the great value of these means of shortening exposures. I have no doubt the editor will see the great importance of reproducing the article in question (page 522). Query? Do not some photographers owe the short-

ness of the exposures they make to the imperfect obstruction to the actinic rays of the yellow glass used in their dark-room?

CHARLES WALDACK.

GERMAN CORRESPONDENCE.

Becquerel's Researches on the Action of Pigments on the Sensitiveness of the Salts of Silver—Exciting and Continuing Rays— About the Different Action of the Sensitizers on the Various Silver Salts—The Alcohol Alkaline Developer—The Permanganate Intensifier.

WHEN I published my observations on the action of pigments on the sensitiveness of bromide of silver, my experiments were repeated in different quarters, but without result. I have, in several instances, demonstrated the cause of failure, still there remained doubters who absolutely refused to believe that bromide of silver can be made sensitive for yellow and red light. These doubters will no doubt hear with much interest that Becquerel in Paris has repeated my experiments with perfect success. Besides the coloring materials which I employed, he has also tried chlorophyll, and this material shows a very great sensitiveness for red. I must here remark that Becquerel talks of his so-called continuing rays. Formerly he made a distinction between exciting and continuing rays, and maintained that the latter, i. e., the yellow and red rays, might continue the action produced by blue rays. You are aware that, based on this supposition, it has been tried a hundred times to shorten the time of exposure by continuing the illumination with yellow and red light. The theory sounded very well, but practice has demonstrated that the whole is based on an illusion. And if any results were obtained by an after illumination, it was due to the fact that the yellow and red rays had an admixture of blue and violet. Becquerel declares now himself that with wet plates a continuous action only appears under certain conditions, which so far could not be definitely determined-only with dry plates this phenomenon is clearly visible.

The sensitiveness which, according to my experiments with pigments, is given to bromide of silver, explains Mr. Becquerel, by stating that by the first exposure the color of bromide and chloride of silver is changed, and in this way the power of absorption for yellow light is produced. It is a pity that this publication did not appear sooner, as it would have saved to the practical photographer much valuable time spent in experiments.

Recently I have again commenced to make experiments with sensitizers, and obtained rather curious results. We know that the sensitiveness of iodide of silver is materially increased if bodies are present which can bind iodine chemically. instance, nitrate of silver, tannin, pyrogallie acid, morphia. One should think that the same substances would exercise a similar effect on bromide of silver, but this is not the case. Nitrate of silver increases the sensitiveness of bromide of silver considerably, but morphia and pyrogallic acid exercise no influence. It follows, from the above, that these preservatives affect bromide of silver dry plates different from iodide of silver dry plates, and I have, in fact, prepared bromide of silver dry plates which, without a coating, were as sensitive as those prepared with the coating recoinmended by Wortley. This variable affection for sensitizers extends also to chloride of silver. So, for instance, is bromide of silver made sensitive for yellow light by the addition of aniline red, while chloride of silver is only slightly affected by the addition of this substance, which manifests itself only after a long exposure.

This variable behavior of the different salts is probably due to physical causes instead of chemical ones. Further experiments will elucidate these points.

While making my experiments with different pigments I often made use of dry plates. I prepared these always in the ordinary way with bromine collodion and the nitrate bath. The development I made always alkaline. Generally the alkaline developer does not give as clean a plate as the acid. Lately I observed that the alkaline developer works much cleaner if in place of water alcohol is used. You know that

the plate is moistened with alcohol previous to developing it, and in order to make the developer flow evenly, which consists of pyrogallie, ammonia, a bromine salt, and water, the plate has to be washed with water. To avoid this latter operation I made an alcoholic developer, which can be poured on without washing. This developer came fully up to my expectations. It develops much slower than the watery solution, and very clean, and I was enabled to reduce the quantity of bromine salt considerably, and increase the proportion of pyrogallic materially, without being troubled The more I decreased the with fog. amount of alcohol the more rapidly did the picture appear. It is curious that the film adheres very strongly to the plate when the alcoholic developer has been used, while generally it easily leaves the plate when an alkaline developer is employed. I develop in the following manner:

<i>a</i> .	Alcohol,				80 cu	bic cen	timetres
	Water,				10	44	4.6
	Ammonia,				10	44	"
ь.	Pyrogallic	Acid	١,		10 g	rammes	ı.
	Alcohol,				100	4 6	
c.	Bromide o	f Am	mon.	, .	4		
	Water,				20	46	

Eight cubic centimetres (a) are mixed with 6 to 24 drops (b) and 2 drops (c) and poured over the plate, which has previously been moistened with alcohol. If the picture appears too slowly, the quantity of pyrogallic and ammonia may be increased; it will not appear too rapidly, unless the plate is very much overexposed; but even then there is ample time to wash off the developer with alcohol, and to use a mixture containing less pyrogallic.

For intensification, 8 cubic centimetres ammonia and 6-20 drops of pyrogallic are used; tromide of ammonia is not necessary. If in formula a the water is left out entirely, and only absolute alcohol is used mixed with ammonia, no bromide is necessary unless the plate is much over-exposed. If a rapid development is desired, the quantity of water in a may be increased; but the slow development is a great advantage, as the picture is under much better control than with the watery developer. It sometimes happens, with the watery developed

oper, that an over-exposed plate is treated with too much pyrogallie, or too little bromine, and in this way gets spoiled, because it is difficult to stop the development. With the alcoholic developer this does not happen; and if a plate should be underexposed, and developed with insufficient detail, the alcoholic developer may be washed off, and the watery one taken in its place.

The slower action of the atcoholic developer depends probably on the fact that the alcohol retards the oxidation of the pyrogallic acid. It is well known that pyrogallic in a watery solution turns brown quickly, while dissolved in alcohol it will keep for years without spoiling. This retarding influence of the alcohol manifests itself also in the development; the solubility of the nitrate of silver exercises a further influence. A slight quantity of nitrate of silver is present in the dry plates, and this quantity would be dissolved and cause fog with the alkaline development if no bromine were present, which converts the nitrate at once into bromide of silver. In alcohol the nitrate dissolves much more slowly, and therefore the danger of fogging is, with an alcoholic developer, even when very little bromine is present, very slight.

I noticed in the English journals that some learned readers state that my remarks about intensifying with permanganate, as described in your September number, is nothing new.

I fully agree with these critics, but must observe that I never claimed novelty for this process, but only intended to call attention to this but little practiced and but little known method of intensification, which for reproductions offers decided advantages:

A want of permanence I have never noticed in plates intensified with permanganate. Some of them I have kept now for six months; and our mutual friend Simpson declares in his excellent periodical, "We have not found any lack of permanence in such negatives." Concerning the origin of this process, I have to remark that Mr. Grune, of this city, was the first one to practice it, and he published his method about nine years ago.

Yours truly, PROF. H. VOGEL.

PHOTOGRAPHY IN FRANCE.

BY ERNEST LACAN.

The processes for enlargement have without doubt lately made great progress in France. Not only have the operations been much simplified and the appliances pertaining thereto, but besides it has been possible to render more easy and complete the retouching which plays such an important part in this kind of work. It may be said, that Lambertypie transforms the most ordinary negative into a work of art, perfect in every respect.

But in the Lambert process, as in all preceding ones, it is necessary first to have at one's disposal daylight, if not solar light, in all its brilliancy; and secondly, to use a transparent positive or negative through which this light can pass.

In most cases the photographer receives a portrait, card or album size, on paper mounted on bristol board, and which is destined to serve as a starting-point for the enlargement. It is necessary that the operator should transform this original type into a glass negative or positive which, placed in the apparatus, will give him the final enlargement.

To-day this work is entirely modified by an apparatus which enlarges opaque objects, so that it is the portrait on paper itself which is used for the enlargement. This apparatus is composed of a reflector, which may be used with all kinds of lamps, and of a kind of little camera forming an elbow. The object to be reproduced attached to a card, or the positive portrait that is to be enlarged, is placed in a frame at the inner angle of the elbow, so as to receive the light at an angle of 45°, and to reflect the image through the objective, which closes the camera at the opposite end of the box.

The metal reflector, which is polished in the interior, is spherical. It fits exactly on the lamp in such a manner that all the light is collected and projected on the object to be reproduced; a small pipe is adapted to the top of this shade, which, when magnesium is used, permits the thick vapors which are then produced to escape through a flue or window with which it communicates.

The enlarged image appears on a screen

placed on an ordinary easel, which is brought towards or pushed from the objective according to the size to be given to the enlargement. After focussing, the screen is replaced by a sensitized plate, or a sheet of silvered paper. If it be thought that the light of the oil-lamp is insufficient in a photogenic point of view, a magnesium Solomon lamp, or any other lighting system may be substituted. I must say, nevertheless, that one of our most skilful amateurs, Mr. Andra, has obtained by means of this apparatus, and with an ordinary modérateur lamp, with double action, an enlarged portrait (from a card) in one minute and a half; the negative was very sharp and strong.

The effect produced is wonderful, when instead of the positive print on paper, we place in the frame a piece of silver money, a cameo, or any insect which can be placed on a piece of pasteboard. The relief given by the image is rendered with extreme vigor. It is needless to remark, that this process requires no particular arrangement of the room, and it is only necessary to render as dark as possible the apartment in which we operate.

The apparatus in question has therefore the double advantage of allowing enlargements to be made directly from positive prints on paper, and of permitting this kind of work to be done at all hours of the day or night. It is evident that in the conditions mentioned above retouching is very easy.

Count De Courten, who works actively in photolithography, and who directs in Florence a special establishment for this kind of work, sends me a communication which will particularly interest those persons who devote themselves to the reproduction of drawings and line engravings. These persons have to fear two important difficulties, which are, either the too great transparency of the tone of the background, or the veil more or less intense which spreads over the lines. The first of these defects should be especially attributed to too short an exposure, the second to an exaggerated strengthening. Count De Courten has succeeded in avoiding both, and in obtaining an opacity of background which renders certain the excellence of the reproduction. He proceeds in the following manner:

He prepares a first solution composed of Alcohol at 36°, . . . 5 c.c., 81 minims Bichlorido of Mercury, 2 grammes, 31 grains.

The bichloride is first finely pulverized, then the alcohol is added, and when the solution appears complete, an addition of 100 c.c., $3\frac{1}{2}$ fluid ounces of water is made.

A second solution is composed of 2 grammes, 31 grains of iodide of cadmium, in 100 c.c., 3\(\frac{1}{2}\) fluid ounces of water.

One may be employed as a bath, the other is poured from a glass vessel with a lip. When the negative (which should be developed with sulphate of iron) has been well washed, and the iodized film is perfectly clear in the lines, it is fixed in a bath of about twenty-five per cent. of hyposulphite of soda. It sometimes happens that the negative then is so weak that it might be thought incapable of giving a good print, nevertheless the apparent lightness of the background is not objectionable. If, however, it is thought necessary, the negative may be strengthened after fixing and washing by pouring on it at intervals a little of the iron solution, which has been used in developing, and to which has been added a few drops of the silver bath. It is only necessary that the coating should have obtained a slight degree of intensity; the addition of the silver, however small it may be, helps the precipitation of the mercury. Pyrogallic acid cannot be used for a developer, because its action is specially exerted on the transparent lines; it becomes loaded with the silver precipitate, and the negative is completely spoiled.

Before preparation with the bichloride, the plate should be freed from any soluble reagent and well drained. It is immersed face upward, and the dish is shaken so that the action of the bichloride may be equally distributed.

A certain latitude may be observed for this intensification of the negative; if the bath be short the image takes a dark-gray tone, and then is obtained a black couche coating very agreeable to the eye; if the bath be prolonged, the coating becomes of a whitish-gray, and we have a negative with a sharp yellow background highly imper-

meable to light. When removed from the bichloride the plate is carefully washed, and is covered at intervals with the solution of iodide of cadmium. At once the superficial coating becomes whitish-yellow, and the lines acquire great limpidity. Seen by transparency the background is black, opaque, and velvety. It is essential that all the bichloride of mercury should be converted into protiodide of mercury; it is certain that this result is obtained when the back of the negative, seen by reflection, shows a uniform greenish tint without trace of a grayish tinge; this is the important point. The operation is terminated by washing in plenty of water, which prolonged renders certain the preservation of the negative. The plate is then to be varnished with a solution of gum arabic at 12 per cent.

Mr. De Courten, in another letter, treats of a question which occupies much attention among photographers; this is the mottling formed in developing the images on wet collodion. In working with wet collodion, it too often happens that streaks and mottlings, almost always irremediable, appear under the action of the iron de-These abnormal reductions alveloper. ways occur at the bottom of the plate, where there is an accumulation of the argentiferous liquid; they have the form of comb-strokes, or of veins with jagged outlines. Brown by transparency, they are of a silvery gray when seen by reflection. It is possible to remove them under water with a soft brush, but the place they occupied has no image on it; the developer has only produced there incomplete development. This occurs especially when we make use of a silver bath which has been in use for some time, and during very hot weather. Mr. De Courten has found a very simple remedy for this trouble: when taken from the frame, after exposure, the plate is placed against the wall (the collodionized surface on the outside), and resting on blotting-paper; then a band of blotting-paper, very clean, or, what is better, of Berzelius paper, five centimetres (two inches) wide and sufficiently long, is lightly applied to the bottom of the collodionized surface, so that the excess of the liquid is absorbed

without pressure or friction. This operation never fails of success.

In a recent communication, one of our most distinguished amateur photographers insists upon the advantages of the silverbath with azotate of potash for sensitizing positive papers. The paper spreads itself on it with great facility, and the bath never acquires a disagreeable odor, as the salt of potash acts as an antiput rescent; moreover, with a bath thus prepared, prints give in toning all the desirable tints. The author of this communication does not consider ammoniacal fumings as indispensable; however, they render the printing quicker and favor the toning; besides, it is a very simple

operation. The chloride of silver absorbing the ammoniacal gas in large quantity, it results from this that the fumed paper is a little in the condition of a paper prepared over a nitro-ammonia silver-bath, which is often praised for shortening the exposure, and giving more softness to the print.

I inclose in my letter two pictures which have been printed on a paper sensitized in a bath of three per cent. of nitrate of silver, and eight per cent. of nitrate of potash; the paper which was highly albumenized has lost nothing of its brilliancy, and you can judge of the vigor, richness, and variety of tones obtainable by this process. (Excellent!—ED. P. P.)

Editor's Table.

HAPPY NEW YEAR! to one and all, and much of the good things of this earth to help you enjoy it. We have great hopes that the first of the year will bring us all better business and more of it. Keep at it, keep read up, make good work, and you will succeed.

INDEX FOR 1874, Vol. XI.—We present with this number a copious index of the current volume of our magazine, with title-page for binding. Read our "Red-Letter Sheet" again, and secure the biggest present.

MR. THEODORE N. GATES, Worcester, Mass., who for over a year has been residing in London in the interests of the Phenix Plate Company, has attached himself again to the same company, and is making effort to introduce the new "white ferrotype plate," of which more soon again.

THE NEW POSTAL LAW, compels us to prepay the postage on our magazine next year, and we shall do it without asking any return from our subscribers. But we must ask them to remit for their subscriptions previous to January 1st, if they would not compel us to discontinue sending their copies, as it is not just that we should pay postage without remittance. Please attend to this now.

THE PHOTOGRAPHER'S FRIEND, heretofore published by Mr. R. Walzl, in Baltimore, has become

ours, and all orders for back numbers should be addressed to us. Price as before. We cannot but congratulate Mr. Wulzl on his release from the exacting duties of photographic journalism. He knows full well how great and responsible they are. The Friend will no longer be published, and we urge its old friends to attach their names to our subscription list if there are any who are not already there. We will be as good as a friend to you.

"A NEGATIVE BATH THREE YEARS OLD."—
Under this head, on page 25 of Photographic
Mosaics, 1875, Mr. William H. Sherman, of
Milwaukee, Wisconsin, contributes some valuable experience with a novel bath of his, and we
doubt not it will prove valuable to all. Some
pictures from negatives made in his bath are
before us, and they are as lovely and soft as
loveliness and softness can make them; the pictures of children being particularly fine. Mr.
Sherman asks us to say that where he says use
"one-half fluid drachm of glacial acetic acid,"
it should be one drachm. Remember this.

THE BOSTON PHOTOGRAPHERS who had enterprise enough to exhibit of their best work at the fair of the Massachusetts Mechanics' Association fared well. Messrs. Allen & Rowell received a gold medal for their elegant carbon enlargements. Messrs. J. R. Osgood & Co., the same for heliotypes; and a silver medal was also awarded to

Messrs. A. Marshall, J. W. Black, George Barker (of Niagara Falls), and D. W. Butterfield. We have not heard of the awards made at the other exhibitions named in our last, but hope our readers will post us soon.

MR. Well G. Singhi, Binghamton, New York, offers his very desirable gallery for sale. He has a very fine set of rooms: a reception-room like a lady's parlor, and the operating and chemical rooms all one could desire. New and of best quality; and Binghamton is called the "Parlor City." It is a sprightly place for business.

MR. JOHN BARNETT, No. 565 Broadway, New York, desires attention directed to his advertisement of his superior cameo dies. They are in use by many of the leading photographers, and judging from the handsome results he sends us, they must be very finely finished and mathematically true. For this reason we commend them to our readers.

A "PUT-UP JOB" upon our friend, Mr. Z. P. McMillen, Galesburg, accusing him of arson, has resulted, we are glad to say, just as we expected, in an acquittal by a unanimous vote of the jury and the approval of his fellow-citizens.

NATURAL HISTORY.—Messrs. Hurst & Son, of Albany, N.Y., send us some fine colored stereos of birds and animals. They are really works of art both in the grouping and coloring, while the habits of each species are faithfully represented, rendering them as true to life as when in their native haunts. As educational studies for picture teaching, as Messrs. Hurst intend them to be, they must prove valuable and interesting.

PICTURES RECEIVED.—Cabinets from Messrs. Bogardus, of New York; Limpert & North, Columbus, Ohio; T. Hunter, Galt, Ontario; Singhi, Binghamton, N. Y.; Cabinets and Cards from S. H. Pearsons, St. Johns, N. F.; Cards from Messrs. Singhi, Binghamton, N. Y.; J. Pitcher Spooner, Stockton, California; Sitler & Launey, Shelbyville, Ill.; and Maxwell, Batesville, Ark. Stereos from Messrs. Julius Hall, Great Barrington, Mass.; Hurst & Son, Albany, N. Y. Series of Natural History Studies, J. Collier, Central City, Colorado. Unmounted Cabinet Prints from Krueger & Piper, San Antonio, Texas.

It will thus be seen how widespread is the influence of this Journal. In this little collection we have been remembered from California to Newfoundland, and from Texas to Ontario. Nearly all this work is of a high order of excellence, and shows a marked improvement on

the part of many. From the remotest sections we now have work that compares favorably with some of the best work in more favored localities. We are glad to see this, and hope no one will relax his efforts because he is doing well, but always continue to try to do better.

MESSRS. LONG & SMITH, Quincy, Illinois, send us a very complete pamphlet catalogue and price list of their photographic goods, which will be found valuable to photographers doing business with them.

DESCRIPTIVE PRICE LIST OF PHOTOGRAPHIC FERN-LEAF MOTTOES.—We have received from Miss Ettie R. Kuhn a very neatly gotten up circular with the above title, and are glad to know that the ladies have taken hold of this beautiful branch of photography, and doubt not that in their skilful hands lenf-prints will become as fascinating and popular as we know they are capable of being.

In a late number of our magazine we alluded to a very fine group picture of the officers of the late Council of the Lutheran Church, printed by the Woodbury process. We now add, what we did not know before, that it is published by Mr. S. A. Rote, Ridgway, Elk County, Pa., and sold at \$2.50 per copy for the benefit of the Lutheran Mission, who have just built a church at that place. There are nineteen cards and one cabinet picture in the group. Photographers would do well to have a copy for use in "working up" just such orders for permanent photographs, and at the same time help a good cause.

ANOTHER FIRE.—We regret to learn that Mr. G. F. Flagg, Ovid, N. Y., was recently burned out, and lost nearly all his property. In the spring he hopes to rebuild, and then we predict for him greater success than ever.

Frank Leslie's Illustrated Newspaper, having reached its thousandth number, the publisher, to commemorate its millennial, gives with this issue a beautiful presentation plate, entitled "Meditation," and a supplement showing the progress of Frank Leslie's Illustrated Newspaper as the faithful record, with pen and pencil, of the events of the world during the last twenty years. In the same number commences Farjeon's charming holiday story, "The King of No-Land." This memorial number possesses attractions for all, and commends itself to all interested in the illustrated press of America, of which Frank Leslie's Illustrated Newspaper is the pioneer and type.

MR. J. F. RYDER, Cleveland, O., has published two more chromos, entitled "Deacon Jones's Ex-

perience" and "Ouch!" both mirth-provoking. He will send you a circular describing them all, with woodcuts, if you ask him.

We regret that our crowded space prevents the insertion of nearly twelve pages more of "Filtrations," and many other good things from the craft, until our next number. We thank our contributors and friends for all these good things. We prefer the original filtrations to mere extracts of foreign matter. It requires some work to pullitin, but there are plenty willing to join us, it seems.

We received the letter below from Mr. Southworth in time for our November issue, but it was forgotten, and he asks us to publish it now. We do so to gratify him, but at the same time must add that it was no fear of patentees or the like that influenced the Executive Committee to vote not to hold the Convention in Boston.

36 Soley Street, Charlestown District, Boston, October 2d, 1874.

EDITOR OF PHILADELPHIA PHOTOGRAPHER.

DEAR SIR: I supposed, in my remarks of invitation to the members of the National Photographic Association at Chicago, to meet in Boston in 1875, I conveyed clearly and directly to its members, the assurance that no logal steps to establish or affect our patent rights would be commenced in any instance against any member in attendance.

Whatever I did say was then only as one of three partners. I desire now to reiterate the same by the authority of my associates, that no member of the profession may be deterred from attending, or have any such reason for not attending any Convention of the National Photographic Association in any locality. Let me here add that in consideration of the importance of the Centennial at Philadelphia, in 1876, and the necessity of the most strenuous exertions of the members of the National Photographic Association to do themselves honor, and reflect honor upon the art of photography in the United States, it still seems to me that it would be better to defer any meeting of the Convention in 1875, and use our funds and energies to their furthest extent in 1876, and I yet hope it is not too late for such a plan to be

To the editor of the *Philadelphia Photographer*, and the officers and members of the National Photographic Association, I subscribe,

Most respectfully, etc.,

ALBERT S. SOUTHWORTH.

Mr. Charles Bierstadt's Views in Egypt and Palestine.—Mr. Bierstadt has recently

returned from a photographic tour through Egypt and the Holy Land. We have had the pleasure of inspecting this series, so intensely interesting in their associations with scenes that awaken the liveliest emotions with every one who is at all familiar with Bible history, and especially with those who feel interested in scenes made memorable by the life and labors of Christ and the Apostles. In these views we are taken over the very ground and among the scenes that are so intimately connected with all they did. In all these the city of Jerusalem is the spot where the greatest interest centres. Here are designated the places where all the great events of Bible history, from the time of Solomon down to that tragic event which consummated the earthly labors of the Great Founder of the Christian religion. From this point attractive routes invite the tourist in all directions. But as the modes of travel there are still the same as in the days when Abraham first beheld the Promised Land, it is no easy task to journey over the extent of country covered by these views; and we can but admire the pluck and perseverance which stimulated our artist to accomplish so much.

We can follow Mr. Bierstadt in his journeys over the sacred ground, from Jerusalem through the north of Palestine and visit the wonderful ruins of Baalbec, and the cities where powerful kings have lived and reigned, but whose glory has long since departed.

Towards the south we go with him over the route travelled by Jacob and his twelve sons, when they went down into Egypt; we make a tour of that strange country among the mysterious and mighty remains of a great and powerful nation, where the Pharaohs flourished in their magnificence, and the Pyramids and Sphinxes lift themselves out of the sandy wastes as monuments of some great events of which there is but little definite history except their own stupendous proportions.

In these journeyings our artist gives us frequent glimpses of the domestic life and condition of the people. We see the Jews and priests of Jerusalem in real lifelike portraits, and the native Arabs in their daily pursuits along the streets; the modern Egyptians, as they serve as guides or assistants to travellers, with the everfaithful and indispensable camel; and lastly, the squalid-looking natives of Tripoli, with their bamboo huts, and a number of views in and about that city, complete the journey. On the whole it is a most interesting series, and Mr. Bierstadt deserves great credit for his enterprise, in travelling so far and overcoming so many difficulties to secure them.

SUPPLEMENT.

IMPORTANT TO PHOTOGRAPHERS!

WE had the sheets of our current number in the hands of the binder when a piece of news came to our hands which we thought important enough to our readers to delay the issue of our magazine a day in order to get in this supplement.

An application was made to the Commissioner of Patents by Simon Wing, of Boston, for an extension for seven years of his patent of December 4, 1860, for an "Improvement in Photographic Cameras."

Opposition was made to the extension, Mr. Edward L. Wilson, of Philadelphia, being the voluntary remonstrant in behalf of himself and as many others as desired to be included of the photographic fraternity. At once a vigorous warfare commenced, Mr. Wing himself occupying the stand as a witness for nearly four days, in Testimony was also taken Philadelphia. in Boston, and every means used by both parties to secure success. It was done quietly, on the part of the remonstrant at least, no allusion being made to it, except on page 343 of the last number of the Philadelphia Photographer, for the reason that if the remonstrant failed he did not wish to be crowed over too much.

We have the happiness, however, of being able to announce to the fraternity the entire success of the opposition and the refusal of the extension.

This we learn from a telegram to our counsel. Further particulars and a copy of the decision will appear in our next number. The grounds for the refusal were, "No invention in view of the state of the art, and a defective account."

A review of the case and some rich revelations concerning it and the testimony of the applicant and would-be millionaire, in our next.

The counsel for Mr. Wing was Chas. F. Stansbury, Esq., of Washington, and Messrs. Howson & Son, of Philadelphia, for Mr. Wilson.

The hearing was held before his honor the Commissioner of Patents, November 25, 1874; and the decision given the day of this writing, November 30.

We congratulate the fraternity on this result; the more so as no appeal to them will be made for the costs.

"Riches hath Wings."

MEDALS AWARDED!

TO

WILLIAM C. ENTREKIN,

FOR HIS

Patent Photo. Enameler



THE SCOVILL GOLD MEDAL,
At the N. P. A. Exhibition. July, 1874.



THE FRANKLIN INSTITUTE SILVER MEDAL, Highest Award. November, 1874.

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Purchasers and users of my Enamelers need have no fears that I shall fail to protect them, and maintain my own rights in my patent in the courts.

WM. G. ENTREKIN,

Inventor and Manufacturer of Entrekin's Oscillating Enameler,

Manayunk, Philadelphia, Pa.

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ADVERTISING RATES FOR SPECIALTIES.—It will be understood that matter under this head is not to be considered as always having editorial sanction, though we shall endeavor to clear it of anything tending to deceive or mislead. Stock-dealers will find this a beneficial mode of advertising, and sure to pay largely. Six lines, one insertion, \$2.00, and 25 cents for each additional line, seven words to a line—in advance. Operators desiring situations, no charge. Matter must be received by the 23d to secure insertion. Advertisers will please not ask us for recommendations. \$49\to We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement.

\$800 Cash will buy a photograph gallery, situated in central Georgia, in the city of Griffin. The best instruments, north, sky, and side light. Population 5000. Prices—cards, \$4; cabinets, \$7. Facilities for making all kinds and sizes of pictures. Address R. J. Deane,

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Please read the two-page advertisements of Charles A. Wilson, Baltimore Stockhouse, No. 7 North Charles Street. Please remember the number, 7 North Charles St., Baltimore, Md.

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Most satisfactory reasons given for selling. Address

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Care Benerman & Wilson, Philadelphia, Pa.

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Lea's Manual of Photography, \$3.75. See Advertisement. Third Thousand.

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JUNE, 1874—AUGUST, 1874 Numbers of the Philadelphia Photographer wanted at this office, at 75 cts. each.

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Office Philadelphia Photographer.

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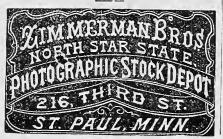
Caution —A man of small dimensions, by name J. W. Ward, is doing the fraternity, selling a process for printing on porcelain, to said process he has no claim, it having been worked out by myself, and learned to him. The print is made on Chlorized Albumen. I intend writing it out and publishing it. In the meantime don't pay your money for what you can have free by addressing W. A. Cox, 56 N. Charles St., Baltimore, Md.

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PHOTOGRAPHIC



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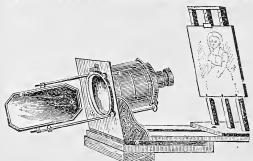
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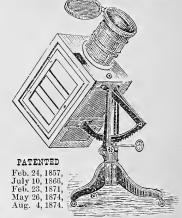
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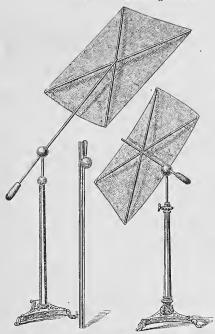
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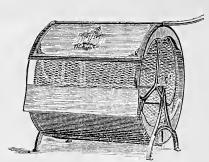
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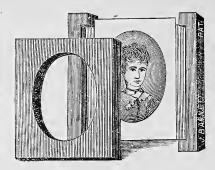
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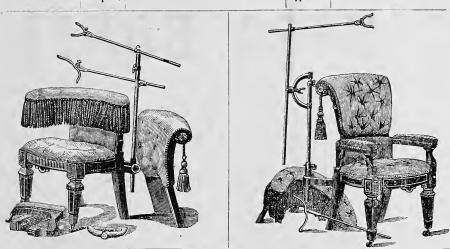
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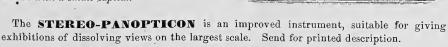
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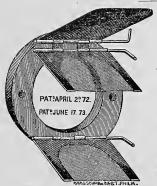
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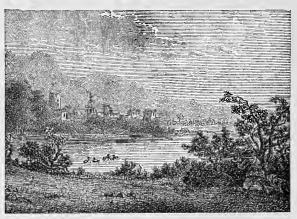
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(SEE OPPOSITE PAGE.)

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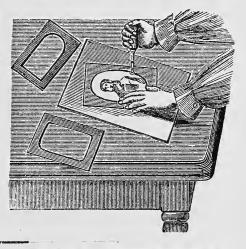
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How far the work serves these three ends the reader must judge from the testimonials below, of a

How far the work serves these three ends the reader must judge from the testimolians below, of a few of those who have been using our little publication in their business.

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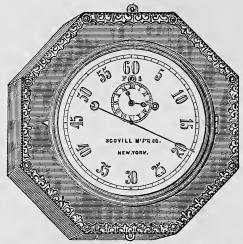
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"	6,	18	4.6	4.6	20	x	24				90	00	66	3,	4,	and	5,	" "			88	

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I have in constant use one of your Improved Bath-Holders and it works finely. I consider it one of the many desirable improvements of the age, as it possesses the qualifications of being good as well as cheap: even the largest sizes are light and easily handled in comparison with the heavy and cumbersome holders so long in use. Yours respectfully, ABM. BOGARDUS.

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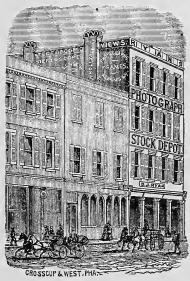
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Fig. 2.

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* *	3,	 4-4	6.6		7		4,6		45	00
6.6	4,	 8-10	٠. (***************************************	101		6.6		60	00
46	5,	 10-12			131				~ 70	00
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"	7,	 18-22	, , ,						200	00

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 —J. B. Gibson, Coatesville, Pa., Nov. 9, 1874.
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- "I have had in use for over four years a No.5 Steinheil Lens, and for the use I have applied it to it has given me the fullest satisfaction. I have mostly used it in reproducing paintings and engravings, and in photographing machinery. It is the best lens I ever used, its depth of focus is wonderful, the illumination is very even over the whole plate, and as a view and copying lens it ranks with me as A No. 1."—John Carbutt, American Photo-Relief Printing Co., Philadelphia, Nov. 6, 1874.
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- "I do not know what to say about the Nos. 5 & 6 Steinheil Lenses except that I believe them to be the best lenses made for all purposes, except portraits indoors. All our copies of engravings and Patent Office negatives are taken by them, and I always recommend their adoption."—ERNEST EDWARDS, Office J. R. Osgood & Co., Boson, Nov. 9, 1874.
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- "For several years past I have used a No. 6 Steinheil Lense. There are uses for it about my gallery that no other instrument would seem to fill, such as copying drawings and maps, and taking negatives of models, machinery, etc. For short views it works admirably. Every well-regulated gallery should have one."—J. F. RYDER, Cleveland, Nov. 7, 1874.

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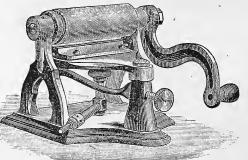
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The proprietor of the Weston & McDonald Patent for a Photographic Burnisher having advertised that he has prosecuted all the photographers and dealers in photographic stock in the New England States who are making, using, or selling the Entrekin Oscillating Enameler for Burnishing Photographs, I take this method of informing the trade and the public that there is no foundation whatever for the statement referred to. I have guaranteed the validity of my patent to all who make, sell, or use it, and have covenanted to defend them against any and all suits for infringement by the following guarantee:

"Whereas,—— has purchased Photograph Burnisher No.— of my invention, and made under my Patent, No. 145,161, granted December 2d, 1873, I, William G. Entrekin, hereby covenant and agree to warrant and defend the said—— his heirs, executors, administrators, and assigns, in the use of said Burnisher against the consequences of any and all suits for infringement which may be brought against him, by the owner or owners of any other Photograph Burnisher whatsoever.

"IN WITNESS WHEREOF, I, the said William G. Entrekin, have hereunto set my hand and seal this——day of———A.D. one thousand eight hundred and———"Witness——."

Threats for the purpose of intimidation have been freely circulated, but only a single suit has been brought, and that was commenced at my invitation, in order that the question of the alleged infringement might be settled by the adjudication of a court. I deny that my patent infringes the patent of Weston & McDonald in any particular; and in support of that denial cite the following opinion of eminent counsel:

Washington, D. C., Friday, June 5, 1874. DEAR STR: Yours is just received. You need not fear any trouble from any parties in regard to the Weston achine. Your Burnisher does not infringe with any feature of the Weston Machine in the least particular. You can, therefore, manufacture and sell your machines with impunity.

Yours truly,

Attorney-at-Law and Solicitor of Patents, Late Examiner in Patent Office.

STANSBURY & MUNN,
Attorneys and Counsellors-at-Law, and Solicitors of American and Foreign Patents,
Washington, D. C., August 7, 1874. W. G. ENTREKIN, Esq. SIR: I have examined reissued Letters Patent No. 5281, granted February 11, 1873, to Weston & McDonald, and your Patent No. 145,161, of December 2, 1873, for Photograph Burnishers, and am of opinion that your Burnisher does not infringe the Weston & McDonald Patent.

CHAS. T. STANSBURY.

WILLIAM G. ENTREKIN, Esq. PHILADELPHIA, September 3, 1874.
Having examined Letters Patent No. 145,161, dated December 2, 1873, to William G. Entrekin, for an improve-Having examined Letters rated No. 145,161, dated beceins 12,1616, to wind an example 12, 1616, to wind the interest of the control of the Entrewing 11, 1873, to E. R. Weston and T. McDonald, for a similar invention, I am of opinion that hurnishers constructed according to the Entrekin patent do not infringe the patent to Weston & McDonald.

Square Tuly, Geo. Harding, Attorney-at-Law.

EXCELSIOR!



The Scovill Gold Medal was awarded by the National Photogra-phic Association of the United States to W. G. Entrekin, for his Oscillating Enameler for Burnishing Photographs, Chicago, July 16, 1874.

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